Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	16	jp-2002323845-$.did. or jp-05273899-$.did. or jp-06067588-$.did. or jp-05210344-$.did. or jp-05210343-$.did. or jp-05257416-$.did. or jp-04188141-$.did. or jp-04166882-$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/30 17:10
L2	10	us-2002127360-$.did. or jp-2001081191-$.did. or jp-11349646-$.did. or jp-11095431-$.did. or jp-08201786-$.did. or jp-03130211-$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2005/08/30 17:19

```
$%^STN;HighlightOn=  ***;HighlightOff=***  ;

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 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  FEB 28   PATDPAFULL - New display fields provide for legal status
                   data from INPADOC
 NEWS  4  FEB 28   BABS - Current-awareness alerts (SDIs) available
 NEWS  5  MAR 02   GBFULL: New full-text patent database on STN
 NEWS  6  MAR 03   REGISTRY/ZREGISTRY - Sequence annotations enhanced
 NEWS  7  MAR 03   MEDLINE file segment of TOXCENTER reloaded
 NEWS  8  MAR 22   KOREAPAT now updated monthly; patent information enhanced
 NEWS  9  MAR 22   Original IDE display format returns to REGISTRY/ZREGISTRY
 NEWS  10 MAR 22   PATDPASPC - New patent database available
 NEWS  11 MAR 22   REGISTRY/ZREGISTRY enhanced with experimental property tags
 NEWS  12 APR 04   EPFULL enhanced with additional patent information and new
                   fields
 NEWS  13 APR 04   EMBASE - Database reloaded and enhanced
 NEWS  14 APR 18   New CAS Information Use Policies available online
 NEWS  15 APR 25   Patent searching, including current-awareness alerts (SDIs),
                   based on application date in CA/CAplus and USPATFULL/USPAT2
                   may be affected by a change in filing date for U.S.
                   applications.
 NEWS  16 APR 28   Improved searching of U.S. Patent Classifications for
                   U.S. patent records in CA/CAplus
 NEWS  17 MAY 23   GBFULL enhanced with patent drawing images
 NEWS  18 MAY 23   REGISTRY has been enhanced with source information from
                   CHEMCATS
 NEWS  19 JUN 06   The Analysis Edition of STN Express with Discover!
                   (Version 8.0 for Windows) now available
 NEWS  20 JUN 13   RUSSIAPAT: New full-text patent database on STN
 NEWS  21 JUN 13   FRFULL enhanced with patent drawing images
 NEWS  22 JUN 27   MARPAT displays enhanced with expanded G-group definitions
                   and text labels
 NEWS  23 JUL 01   MEDICONF removed from STN
 NEWS  24 JUL 07   STN Patent Forums to be held in July 2005
 NEWS  25 JUL 13   SCISEARCH reloaded
 NEWS  26 JUL 20   Powerful new interactive analysis and visualization software,
                   STN AnaVist, now available
 NEWS  27 AUG 11   Derwent World Patents Index(R) web-based training during
                   August
 NEWS  28 AUG 11   STN AnaVist workshops to be held in North America
 NEWS  29 AUG 30   CA/CAplus -Increased access to 19th century research documents
 NEWS  30 AUG 30   CASREACT - Enhanced with displayable reaction conditions

 NEWS EXPRESS  JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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specific topic.
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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:14:20 ON 30 AUG 2005

=> file caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

FILE 'CAPLUS' ENTERED AT 16:14:26 ON 30 AUG 2005
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FILE COVERS 1907 - 30 Aug 2005  VOL 143 ISS 10
FILE LAST UPDATED: 29 Aug 2005  (20050829/ED)

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  This file contains CAS Registry Numbers for easy and accurate
  substance identification.

=> s us 20040137334/pn
L1            1 US 20040137334/PN
                (US2004137334/PN)

=> file reg
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         2.34       2.55

FILE 'REGISTRY' ENTERED AT 16:14:49 ON 30 AUG 2005
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STRUCTURE FILE UPDATES:   29 AUG 2005  HIGHEST RN 862072-85-3
DICTIONARY FILE UPDATES:  29 AUG 2005  HIGHEST RN 862072-85-3

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TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

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  conducting SmartSELECT searches.

*********************************************************************
*                                                                   *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
```

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*                                                                    *
**********************************************************************

Structure search iteration limits have been increased.  See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> tra rn l1
L2          TRANSFER L1 1- RN :      29 TERMS
L3          29 L2

=> d scan

L3   29 ANSWERS   REGISTRY  COPYRIGHT 2005 ACS on STN
IN   Poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-
     propenyl)oxy]- (9CI)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
MF   (C2 H4 O)n C6 H6 O3
CI   PMS, COM


/ Structure 1 in file .gra /


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   29 ANSWERS   REGISTRY  COPYRIGHT 2005 ACS on STN
IN   Phenol, 4,4'-(1-methylethylidene)bis-, polymer with (chloromethyl)oxirane
     (9CI)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
MF   (C15 H16 O2 . C3 H5 Cl O)x
CI   PMS, COM

     CM   1


/ Structure 2 in file .gra /


     CM   2


/ Structure 3 in file .gra /


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   29 ANSWERS   REGISTRY  COPYRIGHT 2005 ACS on STN
IN   Acetic acid ethenyl ester, homopolymer (9CI)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
MF   (C4 H6 O2)x
CI   PMS, COM

     CM   1


/ Structure 4 in file .gra /


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
```

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyl) ester, polymer with 2,2'-(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl)bis[oxirane] and 2,2'-[1,6-hexanediylbis(oxymethylene)]bis[oxirane] (9CI)
MF (C35 H30 O6 . C12 H22 O4 . C12 H10 F12 O2)x
CI PMS

    CM 1

/ Structure 5 in file .gra /

/ Structure 6 in file .gra /

    CM 2

/ Structure 7 in file .gra /

    CM 3

/ Structure 8 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyl) ester, polymer with 2,2'-[1,6-hexanediylbis(oxymethylene)]bis[oxirane] and 3,3'-(3,3,4,4,5,5,6,6-octafluoro-1,8-octanediyl)bis[3-ethyloxetane] (9CI)
MF (C35 H30 O6 . C18 H26 F8 O2 . C12 H22 O4)x
CI PMS

    CM 1

/ Structure 9 in file .gra /

    CM 2

/ Structure 10 in file .gra /

/ Structure 11 in file .gra /

    CM 3

/ Structure 12 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, ethyl ester, polymer with 1-butanol zirconium(4+) salt and 3-(trimethoxysilyl)propyl 2-propenoate (9CI)
MF (C9 H18 O5 Si . C5 H8 O2 . C4 H10 O . 1/4 Zr)x
CI PMS

    CM 1

/ Structure 13 in file .gra /

CM 2

/ Structure 14 in file .gra /

CM 3

/ Structure 15 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyl) ester, polymer with 2,2'-(2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl)bis[oxirane] and .alpha.-(oxiranylmethyl)-.omega.-(oxiranylmethoxy)poly(oxy-1,2-ethanediyl) (9CI)
MF (C35 H30 O6 . C10 H10 F8 O2 . (C2 H4 O)n C6 H10 O3)x
CI PMS

CM 1

/ Structure 16 in file .gra /

/ Structure 17 in file .gra /

CM 2

/ Structure 18 in file .gra /

CM 3

/ Structure 19 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyl) ester, polymer with 2,2'-(2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl)bis[oxirane] (9CI)
MF (C35 H30 O6 . C10 H10 F8 O2)x
CI PMS

CM 1

/ Structure 20 in file .gra /

/ Structure 21 in file .gra /

CM 2

/ Structure 22 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl ester, polymer with (chloromethyl)oxirane, 4,4'-(1-methylethylidene)bis[phenol] and .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI)
MF (C15 H16 O2 . C14 H10 F12 O4 . C3 H5 Cl O . (C2 H4 O)n C6 H6 O3)x
CI PMS

    CM 1

/ Structure 23 in file .gra /

    CM 2

/ Structure 24 in file .gra /

    CM 3

/ Structure 25 in file .gra /

    CM 4

/ Structure 26 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl ester, polymer with 2,2'-[9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyloxymethylene)]bis[oxirane] (9CI)
MF (C35 H34 O6 . C14 H10 F12 O4)x
CI PMS

    CM 1

/ Structure 27 in file .gra /

    CM 2

/ Structure 28 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl ester, homopolymer (9CI)
MF (C14 H10 F12 O4)x
CI PMS

    CM 1

/ Structure 29 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyl)

```
     ester (9CI)
MF   C35 H30 O6
CI   COM


/ Structure 30 in file .gra /


/ Structure 31 in file .gra /


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   29 ANSWERS   REGISTRY  COPYRIGHT 2005 ACS on STN
IN   Dianal BR 73 (9CI)
MF   Unspecified
CI   PMS, COM, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   29 ANSWERS   REGISTRY  COPYRIGHT 2005 ACS on STN
IN   Oxirane, 2,2'-(2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl)bis-
     (9CI)
MF   C12 H10 F12 O2
CI   COM


/ Structure 32 in file .gra /


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   29 ANSWERS   REGISTRY  COPYRIGHT 2005 ACS on STN
IN   2-Propenoic acid, polymer with ethenyl acetate and ethyl 2-propenoate
     (9CI)
MF   (C5 H8 O2 . C4 H6 O2 . C3 H4 O2)x
CI   PMS, COM

     CM   1


/ Structure 33 in file .gra /


     CM   2


/ Structure 34 in file .gra /


     CM   3


/ Structure 35 in file .gra /


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3   29 ANSWERS   REGISTRY  COPYRIGHT 2005 ACS on STN
IN   2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with
     ethenylbenzene (9CI)
```

MF (C8 H8 . C7 H10 O3)x
CI PMS, COM

CM 1

/ Structure 36 in file .gra /

CM 2

/ Structure 37 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (9CI)
MF C15 H20 O6
CI COM

/ Structure 38 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 3-(trimethoxysilyl)propyl ester (9CI)
MF C9 H18 O5 Si
CI COM

/ Structure 39 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2-methyl-, sulfonylbis(4,1-phenylenethio-2,1-ethanediyl) ester, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate, 2,2'-[1,6-hexanediylbis(oxymethylene)]bis[oxirane] and 3,3'-(3,3,4,4,5,5,6,6-octafluoro-1,8-octanediyl)bis[3-ethyloxetane] (9CI)
MF (C24 H26 O6 S3 . C18 H26 F8 O2 . C15 H20 O6 . C12 H22 O4)x
CI PMS

CM 1

/ Structure 40 in file .gra /

CM 2

/ Structure 41 in file .gra /

CM 3

/ Structure 42 in file .gra /

CM 4

/ Structure 43 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Oxetane, 3,3'-(3,3,4,4,5,5,6,6-octafluoro-1,8-octanediyl)bis[3-ethyl-
(9CI)
MF C18 H26 F8 O2
CI COM

/ Structure 44 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with
2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl di-2-propenoate,
ethenylbenzene and 9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-
ethanediyl) di-2-propenoate (9CI)
MF (C35 H30 O6 . C14 H10 F12 O4 . C8 H8 . C7 H10 O3)x
CI PMS

CM 1

/ Structure 45 in file .gra /

/ Structure 46 in file .gra /

CM 2

/ Structure 47 in file .gra /

CM 3

/ Structure 48 in file .gra /

CM 4

/ Structure 49 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2-methyl-, sulfonylbis(4,1-phenylenethio-2,1-ethanediyl)
ester, polymer with 2,2'-(2,2,3,3,4,4,5,5-octafluoro-1,6-
hexanediyl)bis[oxirane] (9CI)
MF (C24 H26 O6 S3 . C10 H10 F8 O2)x
CI PMS

CM 1

/ Structure 50 in file .gra /

CM 2

/ Structure 51 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Oxirane, 2,2'-(2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl)bis-, polymer with .alpha.-(oxiranylmethyl)-.omega.-(oxiranylmethoxy)poly(oxy-1,2-ethanediyl) (9CI)
MF (C10 H10 F8 O2 . (C2 H4 O)n C6 H10 O3)x
CI PMS

CM 1

/ Structure 52 in file .gra /

CM 2

/ Structure 53 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl ester, polymer with 2,2'-[9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-ethanediyloxymethylene)]bis[oxirane] and .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI)
MF (C35 H34 O6 . C14 H10 F12 O4 . (C2 H4 O)n C6 H6 O3)x
CI PMS

CM 1

/ Structure 54 in file .gra /

CM 2

/ Structure 55 in file .gra /

CM 3

/ Structure 56 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Oxirane, 2,2'-(2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl)bis-, homopolymer (9CI)
MF (C10 H10 F8 O2)x
CI PMS

CM 1

/ Structure 57 in file .gra /

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Oxirane, 2,2'-[9H-fluoren-9-ylidenebis(4,1-phenyleneoxy-2,1-
    ethanediyloxymethylene)]bis- (9CI)
MF C35 H34 O6
CI COM

/ Structure 58 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2,2,3,3,4,4,5,5,6,6,7,7-dodecafluoro-1,8-octanediyl
    ester (9CI)
MF C14 H10 F12 O4
CI COM

/ Structure 59 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN 2-Propenoic acid, 2-methyl-, sulfonylbis(4,1-phenylenethio-2,1-ethanediyl)
    ester (9CI)
MF C24 H26 O6 S3
CI COM

/ Structure 60 in file .gra /

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 29 ANSWERS REGISTRY COPYRIGHT 2005 ACS on STN
IN Oxirane, 2,2'-[1,6-hexanediylbis(oxymethylene)]bis-, homopolymer (9CI)
MF (C12 H22 O4)x
CI PMS, COM

    CM 1

/ Structure 61 in file .gra /

ALL ANSWERS HAVE BEEN SCANNED

=> s l3 and (dodecafluoro? or octafluoro?
UNMATCHED LEFT PARENTHESIS 'AND (DODECAFLUO'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s l3 and (dodecafluoro? or octafluoro?)
        5684 DODECAFLUORO?

```
        13422 OCTAFLUORO?
L4          16 L3 AND (DODECAFLUORO? OR OCTAFLUORO?)

=> s (oxirane or propenoic) and (difluoro or tetrafluoro or hexafluoro or octafluoro or decafluoro
       115249 OXIRANE
       384815 PROPENOIC
       357155 DIFLUORO
       140983 TETRAFLUORO
       102717 HEXAFLUORO
        13422 OCTAFLUORO
         4649 DECAFLUORO
         5684 DODECAFLUORO
L5      10807 (OXIRANE OR PROPENOIC) AND (DIFLUORO OR TETRAFLUORO OR HEXAFLUOR
              O OR OCTAFLUORO OR DECAFLUORO OR DODECAFLUORO)

=> s (oxirane or propenoic) and (difluoro? or tetrafluoro? or hexafluoro? or octafluoro? or decafl
       115249 OXIRANE
       384815 PROPENOIC
       357155 DIFLUORO?
       140983 TETRAFLUORO?
       102717 HEXAFLUORO?
        13422 OCTAFLUORO?
         4649 DECAFLUORO?
         5684 DODECAFLUORO?
L6      10807 (OXIRANE OR PROPENOIC) AND (DIFLUORO? OR TETRAFLUORO? OR HEXAFLU
              ORO? OR OCTAFLUORO? OR DECAFLUORO? OR DODECAFLUORO?)

=> s (oxirane or (propenoic(3a)acid)) (difluoro? or tetrafluoro? or hexafluoro? or octafluoro? or
MISSING OPERATOR

=> s (oxirane or (propenoic(3a)acid)) and (difluoro? or tetrafluoro? or hexafluoro? or octafluoro?
       115249 OXIRANE
       384815 PROPENOIC
      7247368 ACID
         8746 ACIDS
      7253889 ACID
                (ACID OR ACIDS)
       384787 PROPENOIC(3A)ACID
       357155 DIFLUORO?
       140983 TETRAFLUORO?
       102717 HEXAFLUORO?
        13422 OCTAFLUORO?
         4649 DECAFLUORO?
         5684 DODECAFLUORO?
L7      10807 (OXIRANE OR (PROPENOIC(3A)ACID)) AND (DIFLUORO? OR TETRAFLUORO?
              OR HEXAFLUORO? OR OCTAFLUORO? OR DECAFLUORO? OR DODECAFLUORO?)

=> s (oxirane or (propenoic(3a)acid))(5a)(difluoro? or tetrafluoro? or hexafluoro? or octafluoro?
       115249 OXIRANE
       384815 PROPENOIC
      7247368 ACID
         8746 ACIDS
      7253889 ACID
                (ACID OR ACIDS)
       357155 DIFLUORO?
       140983 TETRAFLUORO?
       102717 HEXAFLUORO?
        13422 OCTAFLUORO?
         4649 DECAFLUORO?
         5684 DODECAFLUORO?
L8       7364 (OXIRANE OR (PROPENOIC(3A)ACID))(5A)(DIFLUORO? OR TETRAFLUORO?
              OR HEXAFLUORO? OR OCTAFLUORO? OR DECAFLUORO? OR DODECAFLUORO?)

=> s (propenoic(3a)acid)(5a)(difluoro? or tetrafluoro? or hexafluoro? or octafluoro? or decafluoro
       384815 PROPENOIC
      7247368 ACID
         8746 ACIDS
      7253889 ACID
                (ACID OR ACIDS)
       357155 DIFLUORO?
       140983 TETRAFLUORO?
       102717 HEXAFLUORO?
```

```
         13422 OCTAFLUORO?
          4649 DECAFLUORO?
          5684 DODECAFLUORO?
L9         6128 (PROPENOIC(3A)ACID)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUORO?
               OR OCTAFLUORO? OR DECAFLUORO? OR DODECAFLUORO?)

=> s (oxirane)(5a)(difluoro? or tetrafluoro? or hexafluoro? or octafluoro? or decafluoro? or dodec
        115249 OXIRANE
        357155 DIFLUORO?
        140983 TETRAFLUORO?
        102717 HEXAFLUORO?
         13422 OCTAFLUORO?
          4649 DECAFLUORO?
          5684 DODECAFLUORO?
L10        1298 (OXIRANE)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUORO? OR OCTAFL
               UORO? OR DECAFLUORO? OR DODECAFLUORO?)

=> d his

     (FILE 'HOME' ENTERED AT 16:14:20 ON 30 AUG 2005)

     FILE 'CAPLUS' ENTERED AT 16:14:26 ON 30 AUG 2005
L1             1 S US 20040137334/PN

     FILE 'REGISTRY' ENTERED AT 16:14:49 ON 30 AUG 2005

     FILE 'CAPLUS' ENTERED AT 16:14:54 ON 30 AUG 2005
L2                TRA L1 1- RN :       29 TERMS

     FILE 'REGISTRY' ENTERED AT 16:14:54 ON 30 AUG 2005
L3            29 SEA L2
L4            16 S L3 AND (DODECAFLUORO? OR OCTAFLUORO?)
L5         10807 S (OXIRANE OR PROPENOIC) AND (DIFLUORO OR TETRAFLUORO OR HEXAFL
L6         10807 S (OXIRANE OR PROPENOIC) AND (DIFLUORO? OR TETRAFLUORO? OR HEXA
L7         10807 S (OXIRANE OR (PROPENOIC(3A)ACID)) AND (DIFLUORO? OR TETRAFLUOR
L8          7364 S (OXIRANE OR (PROPENOIC(3A)ACID))(5A)(DIFLUORO? OR TETRAFLUORO
L9          6128 S (PROPENOIC(3A)ACID)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUO
L10         1298 S (OXIRANE)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUORO? OR OCT

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                                                       ENTRY    SESSION
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=> s l4
L11           16 L4

=> d all 1-11
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L11 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:181531 CAPLUS
DN 142:249096
ED Entered STN: 04 Mar 2005
TI Volume holograms with wide viewing angle and high brightness and holographic materials therefor
IN Tone, Tetsuya; Otaki, Hiroyuki
PA Dainippon Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03H001-04
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005055596	A2	20050303	JP 2003-285043	20030801

PRAI JP 2003-285043 20030801
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005055596	ICM	G03H001-02
	ICS	G03F007-004; G03H001-04
JP 2005055596	FTERM	2H025/AA00; 2H025/AB14; 2H025/BH05; 2K008/AA13; 2K008/DD01; 2K008/DD13; 2K008/DD14; 2K008/FF03; 2K008/FF17; 2K008/HH02

AB The materials comprise three components A, B, and C sep. having refractive index of nA, nB, and nC and satisfy (i) |nA - nB| < |nA - nC| and (ii) |nB - nC| < |nA - nB|. The A are polymd. upon exposure to form interference fringes while B and C being insensitive to the light and undergoing phase sepn. of C from B. Otherwise, the C are polymd. upon the light exposure to form domains in B while A and B being insensitive to the light. The diffraction efficiency in the materials is large, resulting in formation of bright images.
ST vol hologram diffraction efficiency image brightness; fluoroglycidyl ether domain formation vol hologram; viewing angle enlarged vol hologram diffraction efficiency
IT Holography
Phase separation
(phase-sepg. holog. materials for vol. holograms with wide viewing angle and high brightness)
IT ***74328-56-6***
RL: TEM (Technical or engineered material use); USES (Uses)
(domain phase; phase-sepg. holog. materials for vol. holograms with wide viewing angle and high brightness)
IT 16096-31-4, 1,6-Hexanediol diglycidyl ether
RL: TEM (Technical or engineered material use); USES (Uses)
(phase-sepg. holog. materials for vol. holograms with wide viewing angle and high brightness)
IT 60651-25-4P, 2,2-Bis[4-(acryloxydiethoxy)phenyl]propane homopolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymd. phase, interference fringes; phase-sepg. holog. materials for vol. holograms with wide viewing angle and high brightness)

L11 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:550176 CAPLUS
DN 141:114129
ED Entered STN: 09 Jul 2004
TI Photosensitive composition for volume holographic recording, photosensitive recording medium, and volume hologram
IN Otaki, Hiroyuki; Yoshihara, Toshio; Maeno, Yoshito
PA Dainippon Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 35 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02

ICS G03F007-004; G03F007-027
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004191919	A2	20040708	JP 2003-172518	20030617
	US 2004137334	A1	20040715	US 2003-615041	20030708
PRAI	JP 2002-204797	A	20020712		
	JP 2002-304672	A	20021018		
	JP 2003-172518	A	20030617		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004191919	ICM	G03H001-02
	ICS	G03F007-004; G03F007-027
JP 2004191919	FTERM	2H025/AA02; 2H025/AB14; 2H025/AC01; 2H025/AD01; 2H025/BC02; 2H025/BC12; 2H025/BC43; 2H025/BC83; 2H025/BD03; 2H025/BE00; 2H025/CA00; 2H025/CB00; 2H025/CC08; 2H025/CC20; 2K008/AA04; 2K008/DD11; 2K008/DD13; 2K008/FF17
US 2004137334	NCL	430/001.000
	ECLA	G03H001/02

AB Title compn. is characterized by contg. fluorine-contg. photosensitive compd. R1R3(CF2)nR4R2 (R1, R2 = photoreactive group; R3, R4 = single bond, C1-5 hydrocarbylene; n .gtoreq.1).

ST fluoropolymer vol holog recording medium

IT Silsesquioxanes
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(epoxy; photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT Epoxy resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(fluorine-contg.; photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT Holographic recording materials
Holography
(photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT 4369-14-6, KBM 5103
RL: TEM (Technical or engineered material use); USES (Uses)
(coupling agent for zirconia particles; photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT ***271765-01-6P*** ***718646-71-0P*** ***718646-72-1P***
718646-73-2P ***718646-74-3P*** ***718646-75-4P***
718646-76-5P ***718646-77-6P*** ***718646-78-7P***
718646-81-2P ***718646-82-3P*** ***718646-83-4P***
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(hologram; photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT 718646-79-8P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT 9003-20-7, Polyvinyl acetate 25068-38-6, Epikote 1007 25167-42-4, Blemmer CP 50S 26570-48-9, Polyethylene glycol diacrylate 26657-28-3, Acrylic acid-ethyl acrylate-vinyl acetate copolymer 29317-10-0, Denacol EX 212 111775-13-4, Dianal BR 73 ***474094-16-1*** , E 7432

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

IT 15625-89-5, Trimethylolpropane triacrylate ***74328-56-6*** 104609-61-2 ***127194-99-4*** 161182-73-6 259881-39-5 ***718646-80-1***
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive compn. for vol. holog. recording, photosensitive recording medium, and vol. hologram)

L11 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:196468 CAPLUS
DN 138:222342
ED Entered STN: 12 Mar 2003
TI Thermosetting fluoropolymer compositions, their cured films, and electronic parts using them
IN Tamura, Mieko; Amagai, Naoyuki
PA NOF Corporation, Japan
SO Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F299-00
ICS C09D004-00; C09D005-25; H01L021-312; H05K003-46
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003073435	A2	20030312	JP 2001-263531	20010831
PRAI JP 2001-263531		20010831		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003073435	ICM	C08F299-00
	ICS	C09D004-00; C09D005-25; H01L021-312; H05K003-46

AB Title compns. comprise (A) thermosetting group-contg. fluoropolymers and (B) pyrolysis-type photopolymn. initiators. The compns. comprising 100 parts A and 0.1-5 parts B show dielec. const. .ltoreq.3.0 at 2 GHz after curing. The electronic parts may be buffer-coat films, passivation films, and interlayer insulating films for semiconductor devices. The films show good heat and solvent resistance and low water absorption.
ST thermosetting fluoropolymer film pyrolysis photopolymn initiator; heat resistance thermosetting fluoropolymer film semiconductor; solvent resistance thermosetting fluoropolymer film semiconductor; water resistance thermosetting fluoropolymer film semiconductor; elec insulating thermosetting fluoropolymer film semiconductor
IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)
IT Heat-resistant materials
Water-resistant materials
(films; thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)
IT Films
(heat-resistant; thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)
IT Polymerization catalysts
(photopolymn., pyrolysis-type; thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)
IT Dielectric films
Plastic films
Semiconductor devices
Solvent-resistant materials
(thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)
IT Films
(water-resistant; thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)

IT 500689-04-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(del thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)
IT 927-07-1, Perbutyl PV 3006-82-4, Perbutyl O
RL: CAT (Catalyst use); USES (Uses)
(pyrolysis-type photopolymn. initiators; thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)
IT 139011-87-3P 164231-41-8P 194987-55-8P 220857-63-6P
271765-01-6P 500689-02-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermosetting fluoropolymer compns. giving heat- and solvent-resistant films for electronic parts)

L11 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:848252 CAPLUS
DN 137:343930
ED Entered STN: 08 Nov 2002
TI Light-sensitive composition for volume holographic recording media
IN Otaki, Hiroyuki; Yoshihara, Toshio
PA Dai Nippon Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03F007-027; G03H001-04
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002323845	A2	20021108	JP 2001-239870	20010807
PRAI JP 2001-46436	A	20010222		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002323845	ICM	G03H001-02
	ICS	G03F007-004; G03F007-027; G03H001-04

AB The title compn. contains a binder polymer, a polymerizable compds. which contains F and .gtoreq.2 ethylenic unsatd. groups, and a photoradical polymn. initiator, wherein binder polymer and the polymerizable compds. have functional groups forming covalent bonds each other. The compn. provides the good refraction modulation and the high sensitivity.
ST light sensitive compn vol holog recording medium
IT Light-sensitive materials
(light-sensitive compn. for vol. holog. recording media)
IT Holographic recording materials
(vol.; light-sensitive compn. for vol. holog. recording media)
IT ***474094-16-1*** , E 7432
RL: TEM (Technical or engineered material use); USES (Uses)
(E 7432; light-sensitive compn. for vol. holog. recording media)
IT 947-19-3, Irgacure 184
RL: CAT (Catalyst use); USES (Uses)
(light-sensitive compn. for vol. holog. recording media)
IT 2785-02-6, NK 1473 244772-00-7, EHPE 3150
RL: TEM (Technical or engineered material use); USES (Uses)
(light-sensitive compn. for vol. holog. recording media)

L11 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:480544 CAPLUS
DN 137:70354
ED Entered STN: 26 Jun 2002
TI Acrylic polymer optical waveguide component
IN Koshobu, Nobutake; Takahara, Hideyuki; Maruno, Toru; Murata, Norio; Tomaru, Akira
PA Nippon Telegraph and Telephone Corp., Japan; NTT Advanced Technology Corp.
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM G02B006-12
ICS C08J005-18; C08L033-16
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002182046	A2	20020626	JP 2000-380966	20001214
PRAI JP 2000-380966		20001214		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002182046	ICM	G02B006-12
	ICS	C08J005-18; C08L033-16

AB The invention refers to an optical waveguide comprising either a core or cladding or both made of reactive oligomer CH2:C(Y)C:OORfOO:CC(Y):CH2 [Y = H, CH3; Rf = -(p)C6H4-C(CF3)2-(p)C6H4-, -C(CF3)2-C6H4-C(CF3)2-, or -CH2(CF2)mCH2-; m = 2 - 10].
ST optical waveguide acrylic polymer
IT Optical waveguides
(optical waveguide element)
IT Acrylic polymers, uses
RL: DEV (Device component use); USES (Uses)
(optical waveguide element)
IT ***271765-01-6*** 271791-57-2 271800-10-3 438626-21-2
RL: DEV (Device component use); USES (Uses)
(optical waveguide element)

L11 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:376951 CAPLUS
DN 133:18485
ED Entered STN: 07 Jun 2000
TI Photocurable adhesive compositions with low refractive index and good adhesion
IN Koshobu, Nobutake; Maruno, Toru; Murata, Norio
PA Nippon Telegraph and Telephone Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09J004-02
ICS C08F020-20
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2000154351	A2	20000606	JP 1998-331713	19981120
PRAI JP 1998-331713		19981120		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2000154351	ICM	C09J004-02
	ICS	C08F020-20

AB The compns., useful for optical parts, comprise CH2:CHCO2CH2(CF2)6CH2OCOCH:CH2 (I) and photoinitiators. Thus, 10 g I was mixed with 0.2 g 2,2-dimethoxy-2-phenylacetophenone and UV-cured to give a test piece, showing refractive index at 589.3 nm 1.4150 and Tg >95.degree.. Bonding of two glass plates with the compn. showed adhesion strength >100 kg/cm2.
ST adhesive fluoro polyacrylate refractive index low; fluorooctylene acrylate polymer optical adhesive
IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; photocurable adhesive compns. based on fluoro-contg. acrylates with low refractive index and good adhesion)
IT Optical materials
Optical materials
(adhesives; photocurable adhesive compns. based on fluoro-contg.

acrylates with low refractive index and good adhesion)
IT Adhesives
Adhesives
(optical; photocurable adhesive compns. based on fluoro-contg. acrylates with low refractive index and good adhesion)
IT Adhesives
(photocurable; photocurable adhesive compns. based on fluoro-contg. acrylates with low refractive index and good adhesion)
IT ***271765-01-6P***
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photocurable adhesive compns. based on fluoro-contg. acrylates with low refractive index and good adhesion)

L11 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:200708 CAPLUS
DN 133:17333
ED Entered STN: 29 Mar 2000
TI Fluorinated epoxides 5. Highly selective synthesis of diepoxides from .alpha.,.omega.-diiodoperfluoroalkanes. Regioselectivity of nucleophilic epoxide-ring opening and new amphiphilic compounds and monomers
AU Cirkva, V.; Gaboyard, M.; Paleta, O.
CS Technicka 5, Department of Organic Chemistry, Prague Institute of Chemical Technology, Prague, 16628, Czech Rep.
SO Journal of Fluorine Chemistry (2000), 102(1-2), 349-361
CODEN: JFLCAR; ISSN: 0022-1139
PB Elsevier Science S.A.
DT Journal
LA English
CC 27-2 (Heterocyclic Compounds (One Hetero Atom))
Section cross-reference(s): 23
OS CASREACT 133:17333
AB An improved procedure for the radical addn. of .alpha.,.omega.-diiodoperfluoroalkanes I(CF2CF2)nI (n = 2, 3) to allyl acetate that affords the corresponding bis-adducts AcOCH2CHICH2(CF2CF2)nCH2CHICH2OAc (n = 2, 3; 2a-2b) has been developed. The primary bis-adducts 2a-2b suffered a subsequent rearrangement in the addn. mixt. to afford semi-rearranged adducts AcOCH2CHICH2(CF2CF2)nCH2CH(OAc)CH2I (3a-3b) in an amt. of ca. 15% rel. at reaction temps. Both adducts 2a-2b and rearranged adducts 3a-3b were converted to diepoxides CH2(-O-)CHCH2(CF2CF2)nCH2CH(-O-)CH2 (4a-4b) with high chemoselectivity in two ways: the selectivity of the direct epoxidn. of 2a-2b and/or 3a-3b with potassium hydroxide was extremely dependent on the solvent; the second method included hydrolysis of 2a-2b and/or 3a-3b to bis-iodohydrins that were easily transformed to the diepoxides 4a-4b. Ring-opening reactions of bis-epoxides 4a-4b with hydroxy compds. in the presence of boron trifluoride etherate took place at the terminal carbon atom of both epoxide rings with complete regioselectivity. A convenient transformation of the diepoxides to the corresponding amphiphilic tetrols via dioxolane intermediates was accomplished with overall yields of 57-65% . Base-catalyzed ring-opening by methacrylic acid was not completely regioselective (89% terminal attack on both oxirane rings) and afforded a mixt. of regioisomeric bis-methacrylates bearing two hydroxyl groups. In contrast, epoxide ring-opening with morpholine was completely regioselective in both diepoxides 4a and 4b.
ST diepoxide prepn ring opening
IT Epoxides
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(diepoxides; prepn. of diepoxides from .alpha.,.omega.-diiodoperfluoroalkanes)
IT Ring opening
(of diepoxides)
IT Regiochemistry
(of ring opening reactions of diepoxides)
IT 79-41-4, reactions 110-91-8, Morpholine, reactions 375-50-8 375-80-4 591-87-7, Allyl acetate
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of diepoxides from .alpha.,.omega.-diiodoperfluoroalkanes)
IT 755-18-0P 755-84-0P 791-22-0P ***74328-56-6P*** 94403-05-1P 170804-08-7P 171735-31-2P 273215-24-0P 273215-25-1P 273215-26-2P 273215-27-3P 273215-28-4P 273215-35-3P 273215-36-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of diepoxides from .alpha.,.omega.-diiodoperfluoroalkanes)

IT 107650-05-5P 194930-68-2P 273215-29-5P 273215-30-8P 273215-31-9P
273215-32-0P 273215-33-1P 273215-34-2P 273215-37-5P 273215-38-6P
273215-39-7P 273215-40-0P 273215-41-1P 273215-42-2P 273215-43-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of diepoxides from .alpha.,.omega.-diiodoperfluoroalkanes)

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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(2) Ayari, A; J Fluorine Chem 1990, V50, P37
(3) Boutevin, B; Adv Polym Sci 1992, V102, P105 CAPLUS
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(10) Cirkva, V; J Fluorine Chem 1995, V74, P97 CAPLUS
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L11 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:801639 CAPLUS
DN 132:37055
ED Entered STN: 21 Dec 1999
TI UV-curable urethane methacrylate coatings compositions for optical fibers
IN Taniguchi, Nobuo; Yokojima, Minoru
PA Nippon Kayaku Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F299-06

ICS C09D005-00; C09D175-16; G02B006-44
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 38, 73
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11349651	A2	19991221	JP 1998-160134	19980609
PRAI	JP 1998-160134		19980609		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11349651	ICM	C08F299-06
	ICS	C09D005-00; C09D175-16; G02B006-44

AB The compn. comprises (A) an urethane methacrylate prepd. by reacting a fluorine-contg. polyol, 2-isocyanatoethyl methacrylate and optionally an org. polyisocyanate, and (B) an photoinitiator. The cured products have refractive index (20.degree.) .ltoreq.1.36, and good hardness, Young's modulus and breaking strength. Thus, 60 parts urethane methacrylate prepd. from Fomblin Z-DOL 2000TX (fluorine-contg. polyether diol) and 2-isocyanatoethyl methacrylate was mixed with 1H,1H-perfluoro-n-octyl acrylate 20, 1H,1H,8H,8H-perfluoro-1,8-octanedioldiacrylate 20 and 1-hydroxycyclohexyl Ph ketone 5 parts, coated on a glass plate, UV-cured to gice a film showing Shore D hardness 50, Young's modulus (25.degree.) 32 kg/mm2 and breaking strength (25.degree.) 2.2 kg/mm2.

ST urethane methacrylate coating optical fiber; fluorine urethane methacrylate coating UV curability; isocyanate Et methacrylate fluorine polyol reaction

IT Optical fibers
(UV-curable urethane methacrylate coatings compns. for optical fibers)

IT Coating materials
(UV-curable; UV-curable urethane methacrylate coatings compns. for optical fibers)

IT Polyurethanes, uses
Polyurethanes, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, fluorine-contg.; UV-curable urethane methacrylate coatings compns. for optical fibers)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyurethane-; UV-curable urethane methacrylate coatings compns. for optical fibers)

IT 307-98-2DP, polymers with fluorine-contg. urethane methacrylates and diacrylates 30674-80-7DP, 2-Isocyanatoethyl methacrylate, reaction products with fluorine-contg. polyols, polymers with fluoroalkyl (di)acrylates ***127194-99-4DP*** , polymers with fluorine-contg. urethane methacrylates and (meth)acrylates 130730-70-0DP, Fomblin Z-DOL 2000TX, reaction products with 2-isocyanatoethyl methacrylate, polymers with fluoroalkyl (di)acrylates 252652-83-8DP, Perfluoro-1,10-decane dicarboxylic acid-3-(perfluoro-n-hexyl)propenoxide copolymer, reaction products with 2-isocyanatoethyl methacrylate, polymers with fluoroalkyl (di)acrylates 252669-70-8DP, polymers with fluorine-contg. urethane methacrylates and diacrylates 252669-71-9DP, polymers with fluorine-contg. urethane methacrylates and acrylates 252679-71-3DP, reaction products with 2-isocyanatoethyl methacrylate, polymers with fluoroalkyl (di)acrylates
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(UV-curable urethane methacrylate coatings compns. for optical fibers)

L11 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:563093 CAPLUS
DN 127:221120
ED Entered STN: 04 Sep 1997
TI Fluorinated polyfunctional (meth)acrylic esters and fluoromonomer compositions for material with low refractive index
IN Yoshida, Tatsurou; Kimura, Yasuhiro; Watanabe, Kenji; Ikeda, Tomoyuki; Itoh, Tetsuya; Goto, Yoshitaka
PA NOF Corporation, Japan
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2

DT Patent
LA Japanese
IC ICM C07C069-653
ICS C08F020-28; C08F020-22; C09D004-02; B32B027-30
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 23, 73
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9730021	A1	19970821	WO 1997-JP356	19970212
	W: CN, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 09301925	A2	19971125	JP 1997-26731	19970210
	EP 820980	A1	19980128	EP 1997-902653	19970212
	EP 820980	B1	20010711		
	R: DE, FR, GB, NL				
	CN 1189149	A	19980729	CN 1997-190350	19970212
	CN 1117726	B	20030813		
	JP 10182746	A2	19980707	JP 1997-34124	19970218
	US 6254973	B1	20010703	US 1997-945228	19971010
	CN 1410484	A	20030416	CN 2001-135809	20011020
PRAI	JP 1996-26473	A	19960214		
	JP 1996-33808	A	19960221		
	JP 1996-57264	A	19960314		
	JP 1996-217449	A	19960819		
	JP 1996-296506	A	19961108		
	WO 1997-JP356	W	19970212		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9730021	ICM	C07C069-653
	ICS	C08F020-28; C08F020-22; C09D004-02; B32B027-30
WO 9730021	ECLA	C07C069/653; C08F022/10B; C08F222/10B
EP 820980	ECLA	C07C069/653; C08F022/10B; C08F222/10B
CN 1189149	ECLA	C07C069/653; C08F022/10B; C08F222/10B
US 6254973	NCL	428/212.000; 428/421.000; 526/242.000; 526/245.000; 560/264.000
	ECLA	C07C069/653; C08F022/10B; C08F222/10B

AB Fluorinated polyfunctional (meth)acrylic esters represented by general formula R1OCH2CH(OR2)RCH(OR4)CH2OR3 (R1-4 = H, acryloyl, methacryloyl; R = C2-12 fluoroalkylene contg. >2 fluorine atom) are synthesized and characterized. A compn. contg. the above fluoromonomers is applied to a transparent base material and cured to give a low-reflective film having a layer of low-refractive material.

ST fluorine contg acrylate synthesis; fluoropolymer acrylic low refractive; film plastic low reflective acrylic fluoropolymer

IT Fluoropolymers, preparation
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(acrylic; fluorinated polyfunctional (meth)acrylic esters and fluoromonomer compns. for material with low refractive index)

IT Polyesters, uses
RL: DEV (Device component use); USES (Uses)
(base film; low-reflective films having low-refractive layer formed from fluorinated polyfunctional (meth)acrylic esters)

IT Laminated plastics, uses
RL: DEV (Device component use); USES (Uses)
(fluorinated polyfunctional (meth)acrylic esters and fluoromonomer compns. for material with low refractive index)

IT Silica gel, uses
RL: DEV (Device component use); USES (Uses)
(low-reflective films having low-refractive layer formed from fluorinated polyfunctional (meth)acrylic esters)

IT 9012-09-3, Triacetylcellulose 25038-59-9, Polyethylene terephthalate, uses
RL: DEV (Device component use); USES (Uses)
(base film; low-reflective films having low-refractive layer formed from fluorinated polyfunctional (meth)acrylic esters)

IT 194877-38-8P 194877-39-9P 194877-40-2P 194877-41-3P 194877-42-4P 194877-43-5P 194877-44-6P 194877-45-7P 194877-53-7P 194930-66-0P 194930-67-1P 194930-69-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)
(fluorinated polyfunctional (meth)acrylic esters and fluoromonomer compns. for material with low refractive index)

IT 126095-71-4, Dipentaerythritol hexaacrylate-polyethylene glycol diacrylate copolymer 194877-46-8 194877-47-9 194877-48-0 194877-49-1 194877-50-4 194877-51-5 194877-52-6 194877-54-8 195008-57-2 195008-58-3
RL: DEV (Device component use); USES (Uses)
(low-reflective films having low-refractive layer formed from fluorinated polyfunctional (meth)acrylic esters)

IT 194930-70-6
RL: DEV (Device component use); USES (Uses)
(low-refractive layer; low-reflective films having low-refractive layer formed from fluorinated polyfunctional (meth)acrylic esters)

IT 79-10-7, 2-Propenoic acid, reactions 791-22-0 814-68-6, Acryloyl chloride ***74328-56-6*** 194877-37-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of fluorinated polyfunctional (meth)acrylic esters)

L11 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:107800 CAPLUS
DN 116:107800
ED Entered STN: 20 Mar 1992
TI Photocurable resin composition and plastic-clad optical fiber using the same
IN Mishima, Takayuki; Okuda, Yasuhiro; Nishimoto, Hiroaki
PA Sumitomo Electric Industries, Ltd., Japan
SO PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C08F299-00
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9109069	A1	19910627	WO 1989-JP1239	19891211
	W: US				
	RW: AT, BE, CH, DE, ES, FR, GB, IT, LU, NL, SE				
	EP 457903	A1	19911127	EP 1990-900327	19891211
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
PRAI	WO 1989-JP1239	W	19891211		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9109069	ICM	C08F299-00

AB Optical fibers having good mech. properties and heat resistance are clad with a cured product of a photocurable resin compn. contg. .gtoreq.2 unsatd. group-contg. compds., photoinitiators, and a coupling agent. Thus, coating a compn. contg. 1:9 dicyclopentenyl methacrylate-perfluoroctylethyl methacrylate copolymer 10, H2C:CHCOOCH2(CF2)6CH2OCOCH:CH2 66, neopentyl glycol diacrylate 15, and trimethylolpropane triacrylate 4, BzC(OH)Me2 5, and H2C:CHSi(OMe)3 2 parts on a quartz rod (diam. 200 .mu.m), curing by UV, and extruding with thermoplastics gave a code having good heat resistance and tensile properties.

ST optical fiber cladding; photocurable optical fiber cladding compn; heat resistance optical fiber; dicyclopentenyl methacrylate copolymer photocurable compn; UV curable optical fiber cladding

IT Optical fibers
(cladding for, photocurable, with good mech. properties, heat-resistant)

IT 2761-24-2, Pentyltriethoxysilane 2768-02-7 120404-60-6
RL: USES (Uses)
(coupling agent, for quartz optical fiber cladding)

IT 2223-82-7 15625-89-5 27905-45-9 59561-84-1D, Diethylene glycol-isophorone diisocyanate copolymer, reaction products with hydroxytetrafluorohexyl acrylate 115137-52-5 118643-50-8 ***127194-99-4*** 136902-49-3 136902-50-6 137031-61-9 137160-37-3D, reaction products with diethylene glycol-isophorone diisocyanate copolymer 139047-51-1

RL: USES (Uses)
(photocurable compns. contg., for optical fiber cladding, heat-resistant)

L11 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:613437 CAPLUS
DN 115:213437
ED Entered STN: 15 Nov 1991
TI Photosetting resins for cladding optical fibers
IN Mishima, Takayuki; Okuda, Yasuhiro; Nishimoto, Hiroaki
PA Sumitomo Electric Industries, Ltd., Japan
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C08F002-48
ICS C08F020-22; C08F020-36; C08F299-00; G02B006-00; C09D004-06
CC 57-1 (Ceramics)
Section cross-reference(s): 38, 78
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9107441	A1	19910530	WO 1989-JP1182	19891121
	W: US				
	RW: AT, BE, CH, DE, ES, FR, GB, IT, LU, NL, SE				
	EP 454845	A1	19911106	EP 1989-912666	19891121
	EP 454845	B1	19950201		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, LU, NL, SE				
	US 5187770	A	19930216	US 1991-721554	19910717
PRAI	WO 1989-JP1182	W	19891121		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9107441	ICM	C08F002-48
	ICS	C08F020-22; C08F020-36; C08F299-00; G02B006-00; C09D004-06
EP 454845	ECLA	C08F002/48; G02B001/04D4; G02B006/02B
US 5187770	NCL	385/145.000; 385/123.000; 385/141.000; 385/144.000; 427/163.200; 427/407.100; 427/513.000

AB The resins contain .gtoreq.1 compd. having .gtoreq.2 unsatd. bonds in its mol., esp. [CH2C(CO2R2)R1]n (sic) or [CH2:C(CO2)R1]nR2 (where R1 = H or Me; R2 = fluoroalkyl group; and n .gtoreq.2), and a photopolymn. initiator and do not contain any compd. having 1 unsatd. bond. Optical fibers with the insertion resin cladding have high strength which is retained at high temp.
ST optical fiber photosetting resin cladding
IT Optical fibers
(cladding of, photosetting resin for)
IT 307-87-9 947-19-3 2223-82-7 15625-89-5 27905-45-9 59561-84-1
115137-52-5 118643-50-8 ***127194-99-4*** 129762-81-8
136902-49-3 136902-50-6 136902-51-7 137031-61-9 137031-62-0
RL: USES (Uses)
(cladding, on optical fibers, for high strength)

=> s l7 and (photoresist? or photopolymer?)
6659 L7
49040 PHOTORESIST?
15028 PHOTOPOLYMER?
19035 PHOTOPOLYMN
292 PHOTOPOLYMNS
19119 PHOTOPOLYMN
(PHOTOPOLYMN OR PHOTOPOLYMNS)
1318 PHOTOPOLYMD
1076 PHOTOPOLYMG
27867 PHOTOPOLYMER?
(PHOTOPOLYMER? OR PHOTOPOLYMN OR PHOTOPOLYMD OR PHOTOPOLYMG)
L12 421 L7 AND (PHOTORESIST? OR PHOTOPOLYMER?)

=> s l7 and (hologra?)
6659 L7
17477 HOLOGRA?

d all 12-16

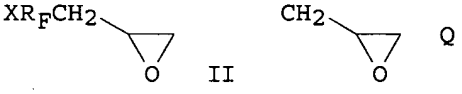
L5 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:155891 CAPLUS
DN 106:155891
ED Entered STN: 15 May 1987
TI Procedure for the preparation of fluorine-containing diols and tetrols
IN Von Werner, Konrad
PA Hoechst A.-G. , Fed. Rep. Ger.
SO Ger. Offen., 8 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C07C031-42
CC 23-7 (Aliphatic Compounds)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 3525494	A1	19870129	DE 1985-3525494	19850717
	EP 209060	A2	19870121	EP 1986-109308	19860708
	EP 209060	A3	19890201		
	EP 209060	B1	19910821		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	JP 62022735	A2	19870130	JP 1986-164866	19860715
PRAI	DE 1985-3525494	A	19850717		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 3525494	ICM	C07C031-42

OS CASREACT 106:155891
GI



AB A procedure for preparing ZRFCH2CH(OH)CHiOH [I; RF = perfluorinated alkylene; Z = F, H, Cl, CH2CH(OH)CH2OH] comprises the reaction of epoxides II (RF as above; X = F, H, Cl, Q) in the presence of H2O and an acid at 20-200°, optionally under pressure, characterized in that a homogenous solution is prepared with II and ≥1 mol H2O per mol Q group in II as well as ≥1 inert organic solvent from the group ketones, ethers, sulfoxides, or sulfones and this solution is reacted in the presence of ≥1 monomeric or polymeric acids, which have a pKs value ≤ + 2 at 25° and ≥1 of -OSO3H, .tplbond.CSO3H, or -CO2H, in an amount which contains 0.001-0.5 of acidic H atom per mol II. I impart oil and grease repellency to the surfaces of various substrates such as textiles, porous substances, etc. A mixture of II (XRF = C8H17), H2O, and Me2CO was stirred and warmed to a homogeneous solution, treated with Amberlyst 15, and stirred 12 h at 100° to give 90.6% yield of 98% pure I (ZRF = C8H17).
ST diol fluoro oil grease repellent; tetrol fluoro oil grease repellent; epoxyfluoroalkane hydrolysis acid org solvent; polyol fluoro oil grease repellent
IT Glycols, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(fluorine-containing, preparation of, as oil and grease repellents)
IT 67-64-1, Acetone, uses and miscellaneous
RL: USES (Uses)
(hydrolysis of glycidyl-containing fluoroalkanes in presence of acids and)
IT 110-71-4, 1,2-Dimethoxyethane 123-91-1, uses and miscellaneous
126-33-0, Tetramethylene sulfone
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of glycidyl-containing fluoroalkanes in presence of acids and)

IT 9037-24-5, Amberlyst 15
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of glycidyl-containing fluoroalkanes in presence of inert organic solvent and)
IT 104-15-4, p-Toluenesulfonic acid, uses and miscellaneous 7664-93-9, Sulfuric acid, uses and miscellaneous
RL: USES (Uses)
(hydrolysis of glycidyl-containing oral alkanes in presence of inert organic solvent and)
IT 63937-00-8, Nafion H 107650-06-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of glycidyl-containing oral alkanes in presence of inert organic solvent and)
IT 1763-23-1 38565-52-5 38565-53-6 **74328-56-6** 74328-57-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(hydrolysis of, in presence of acid and inert organic solvent)
IT 94159-84-9P 107650-04-4P 107650-05-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, by hydrolysis of glycidyl-containing fluoroalkanes)

L5 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1985:47470 CAPLUS
DN 102:47470
ED Entered STN: 09 Feb 1985
TI Coating having low reflectance
PA Asahi Glass Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC B32B017-10; B32B027-00
ICA B32B027-30
CC 42-10 (Coatings, Inks, and Related Products)
Section cross-reference(s): 57
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59115840	A2	19840704	JP 1982-225787	19821224
	JP 03030492	B4	19910430		
PRAI	JP 1982-225787		19821224		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 59115840	IC	B32B017-10IC B32B027-00
	ICA	B32B027-30

AB A coating of silane compound or transparent resin, having a refractive index of same or higher level compared to a transparent substrate, is formed on the substrate and a coating composed of polyfluoro group-containing compound is applied on top to give a multilayer coating. The surface reflectance of glass and plastic substrate can be decreased and hence the coating is useful for doors, windows, and optical lenses. Thus, Rf(CH2)2Si(OMe)3 (I; Rf = CnF2n+1, n = 6, 8, 10, 12 mixture, average 9.0; prepared from RfCH:CH2, HSiCl3 and MeOH) was dissolved in Fronsolve R-113 and Me2CO. Glass plate was first soaked in a solution containing the reaction product of 3-(glycidyloxy)propyltriethoxysilane and H2N(CH2)2NH(CH2)3Si(OMe)3, dried, and then soaked in the I solution, and cured. The coating had good hardness and low reflectance.
ST nonreflective coating fluoroalkylsilane; silane fluoro compd coating; epoxysilane adduct nonreflective coating; aminosilane adduct nonreflective coating; glass plate nonreflective coating; plastic substrate nonreflective coating
IT Glass, oxide
Polycarbonates
RL: USES (Uses)
(coatings for, multilayer antireflective)
IT Amides, compounds
RL: USES (Uses)
(perfluoro, silyl derivs., coatings containing, antireflective, for transparent substrates)

IT Optical materials
(antireflective films, multilayer, containing fluoroalkylsilanes, for transparent substrates)
IT 67-56-1D, reaction products trichlorosilane and ethylene perfluoroalkyl derivs. 74-85-1D, perfluoroalkyl derivs., reaction products with trichlorosilane and methanol 79-41-4D, perfluoroalkylethyl esters, polymers with glycidyl methacrylate 106-91-2D, polymers with perfluoroalkylethyl methacrylates 307-34-6 692-50-2 919-30-2D, reaction products with iso-Pr perfluoroalkanecarboxylates 1760-24-3D, reaction products with glycidyloxytriethoxysilane 2530-87-2 2602-34-8D, reaction products with trimethoxysilylpropylethylenediamine 2768-02-7 3089-11-0D, fluoro derivs. 3388-04-3 10025-78-2D, reaction products with methanol and ethylene perfluoroalkyl derivs. 21652-58-4 24801-88-5 25068-38-6 **74328-56-6** 80941-13-5 88553-97-3 94403-04-0 94403-06-2D, reaction products with fluoroalkyltrichlorosilanes
RL: USES (Uses)
(coatings containing, antireflective, for transparent substrates)
IT 9003-53-6
RL: USES (Uses)
(coatings for, multilayer antireflective)
IT 94403-05-1P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture and epoxidn. of)
IT 35192-54-2P
RL: PREP (Preparation)
(manufacture and reaction with methanol)
IT 375-80-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with allyl alc.)
IT 107-18-6, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with diiodododecafluorohexane)
IT 919-30-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with perfluoro esters)
IT 88566-71-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with silylamines)
IT 1800-91-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with trichlorosilane)

L5 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1981:516734 CAPLUS
DN 95:116734
ED Entered STN: 12 May 1984
TI Adhesive compositions and their use in bonding fluorinated rubbers to substrates
IN Tomoda, Masayasu
PA Daikin Kogyo Co., Ltd. , Japan
SO Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DT Patent
LA English
IC C09J003-16; C08J005-12; B29H009-10
CC 37-3 (Plastics Fabrication and Uses)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 30432	A1	19810617	EP 1980-304282	19801128
	EP 30432	B1	19830720		
	R: DE, FR, GB, IT				
	JP 56079150	A2	19810629	JP 1979-156041	19791130
	US 4339565	A	19820713	US 1980-211388	19801128
PRAI	JP 1979-156041	A	19791130		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

EP 30432 IC C09J003-16IC C08J005-12IC B29H009-10
US 4339565 NCL 528/027.000; 106/287.110; 106/287.120; 106/287.130; 106/287.140; 106/287.150; 106/287.160

AB An adhesive composition, useful for bonding fluorinated rubbers to substrates, comprises a F-containing epoxy compound and a silane compound having an organic functional group. Thus, an adhesive composition comprising 4,4'-(hexafluoroisopropylidene)diphenol diglycidyl ether [2994-63-0] 6.7, A 1120 (H2NCH2CH2NHCH2CH2CH2Si(OCH3)3) [1760-24-3] 4.8, acetone 16.5, MeOH 24, and EtOH 48 parts was applied to degreased stainless steel plates by the flow-spread process and air-dried. A rubber sheet extruded from a composition comprising hexafluoropropene-vinylidene fluoride copolymer [9011-17-0] 100, bisphenol AF 2, 8-benzyl-1,8-diazabicyclo[5.4.0]-7-undecenium chloride 0.4, carbon black 20, MgO 3, and Ca(OH)2 6 was placed on the adhesive-coated plate and heated 15 min at 170° and 35 kg/cm2 for vulcanization bonding. The peeling strength was 4.8 kg/cm.

ST epoxy adhesive fluorinated rubber; silane fluorinated epoxy adhesive; hexafluoropropene copolymer rubber adhesive; vinylidene fluoride copolymer rubber

IT Epoxy resins, uses and miscellaneous
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, containing aminosilanes, for fluorinated rubbers)

IT Adhesives
(aminosilane-epoxy resin, from fluorinated rubbers)

IT Rubber, synthetic
RL: USES (Uses)
(fluoro, adhesives for, from epoxy resins and aminosilanes)

IT 12597-68-1, uses and miscellaneous
RL: USES (Uses)
(adhesives for fluorinated rubber and, from aminosilanes and epoxy resins)

IT 2994-63-0 **74328-56-6**
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, containing aminosilanes, for fluorinated rubbers)

IT 919-30-2 1760-24-3
RL: TEM (Technical or engineered material use); USES (Uses)
(adhesives, containing epoxy resins, for fluorinated rubbers)

IT 9011-17-0 25190-89-0
RL: USES (Uses)
(rubber, adhesives for, from epoxy resins and aminosilanes)

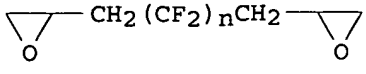
L5 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1980:473000 CAPLUS
DN 93:73000
ED Entered STN: 12 May 1984
TI Epoxy resin composition
IN Ohmori, Akira; Shinjo, Masayoshi
PA Daikin Kogyo Co., Ltd., Japan
SO Ger. Offen., 17 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C08G059-40
CC 36-6 (Plastics Manufacture and Processing)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2943424	A1	19800508	DE 1979-2943424	19791026
	DE 2943424	C2	19830120		
	JP 55060517	A2	19800507	JP 1978-132859	19781027
	JP 57030849	B4	19820701		
	GB 2035327	A	19800618	GB 1979-37119	19791025
	GB 2035327	B2	19830119		
	FR 2439799	A1	19800523	FR 1979-26688	19791026
	FR 2439799	B1	19841228		
	US 4254000	A	19810303	US 1979-88816	19791026
PRAI	JP 1978-132859	A	19781027		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

DE 2943424 IC C08G059-40
US 4254000 NCL 525/481.000; 523/400.000; 525/510.000; 528/402.000
GI



I

AB Mixts. of diepoxides I (n = 4-18) and oligomeric aminoplasts, amide resins, or phenolic resins are coated on molds for plastics and hardened to prepare release coatings which do not adhere to polyurethane foams, butadiene-styrene rubber, and other polymers during molding. Thus, 10 parts I (n = 6) [**74328-56-6**] and 3 parts Melan 27 [9003-08-1] are heated at 120° for 2 h, coated on an Al mold, and heated at 150° for 1.5 h to give a release coating which does not adhere to polyurethane foam during 3 molding cycles.
ST epoxy fluoropolymer release coating; mold plastic release coating; rubber mold release coating; melamine resin release coating
IT Molding apparatus for plastics and rubbers
(release coatings for, fluorinated epoxy resins as)
IT Fluoropolymers
(epoxy-, release coatings, for molds for plastics and rubbers)
IT Epoxy resins, uses and miscellaneous
(fluoropolymer-, parting agents, for molds for plastics and rubbers)
IT 791-22-0 9003-08-1 9003-35-4 9011-05-6 25036-13-9
74328-56-6
RL: USES (Uses)
(release coatings, for molding of plastics and rubbers)

L5 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1980:447875 CAPLUS
DN 93:47875
ED Entered STN: 12 May 1984
TI Epoxy resin composition
IN Ohmori, Akira
PA Daikin Kogyo Co., Ltd., Japan
SO Ger. Offen., 19 pp.
CODEN: GWXXBX
DT Patent
LA German
IC C08L063-00
CC 36-6 (Plastics Manufacture and Processing)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2939550	A1	19800417	DE 1979-2939550	19790928
	DE 2939550	C2	19820616		
	JP 55045774	A2	19800331	JP 1978-120670	19780929
	JP 55043015	B4	19801104		
	US 4267302	A	19810512	US 1979-78827	19790925
	FR 2437423	A1	19800425	FR 1979-24300	19790928
	FR 2437423	B1	19850823		
	GB 2031899	A	19800430	GB 1979-33796	19790928
	GB 2031899	B2	19821124		
PRAI	JP 1978-120670	A	19780929		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 2939550	IC	C08L063-00
US 4267302	NCL	528/103.000; 252/182.150; 528/366.000; 528/402.000

AB Polyepoxides such as 1,4-butanediol diglycidyl ether [2425-79-8] or 4,4,5,5,6,6,7,7-octafluoro-1,9-decadiene diepoxide (I) [791-22-0] are mixed with fluoroalkylepoxides and curing agents to give resins with good resistance to oil, water, and soiling. Thus, 100 parts I containing 5 parts (CF3)2CF(CF2)8CH2CH:CH2 epoxide [47795-34-6] and 3 parts BF3.H2NEt are hardened on Al for 2 h at 150° to five a resin with contact angle for H20 and C16H34 112 and 70°, resp.

ST fluoroalkyl epoxy resin; waterproofing fluoroalkyl epoxy resin; oilproofing fluoroalkyl epoxy resin; soilproofing fluoroalkyl epoxy resin

IT Oilproofing
Soilproofing
(by fluoroalkyl epoxy resins)

IT Epoxy resins, uses and miscellaneous
RL: USES (Uses)
(fluoroalkyl derivs., oil- and water-resistant)

IT Waterproof materials and Water-repellent materials
(fluoroalkyl epoxy resins)

IT 791-22-0 2425-79-8 24564-77-0 41925-33-1 47795-34-6 54009-81-3
74328-56-6 74328-57-7 74328-58-8
RL: USES (Uses)
(epoxy resins containing, oil- and water-resistant)

=>

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          15876 HOLOG
             13 HOLOGS
          15877 HOLOG
                (HOLOG OR HOLOGS)
          20444 HOLOGRA?
                (HOLOGRA? OR HOLOG)
L13          20 L7 AND (HOLOGRA?)

=> d all 1-20

L13  ANSWER 1 OF 20  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2005:511387  CAPLUS
DN   143:125843
ED   Entered STN:  15 Jun 2005
TI     ***Hologram***   quantitative structure-activity relationships for a
     series of farnesoid X receptor activators
AU   Honorio, Kathia M.; Garratt, Richard C.; Andricopulo, Adriano D.
CS   Instituto de Fisica de Sao Carlos, Centro de Biotecnologia Molecular
     Estrutural, Laboratorio de Quimica Medicinal e Computacional, Universidade
     de Sao Paulo, Sao Carlos-SP, 13560-970, Brazil
SO   Bioorganic & Medicinal Chemistry Letters (2005), 15(12), 3119-3125
     CODEN: BMCLE8; ISSN: 0960-894X
PB   Elsevier B.V.
DT   Journal
LA   English
CC   1-3 (Pharmacology)
AB   The farnesoid X receptor (FXR) is an attractive drug target for the
     development of novel therapeutic agents for the treatment of dyslipidemia
     and cholestasis.    ***Hologram***   quant. structure-activity
     relationship (HQSAR) studies were conducted on a series of potent FXR
     activators originated from natural product-like libraries.  A training set
     contg. 82 compds. served to establish the models.  The best HQSAR model
     was generated using atoms, bonds, connections, chirality, and donor and
     acceptor as fragment distinction and fragment size default (4-7) with six
     components.  The model was used to predict the potency of 20 test set
     compds. that were not included in the training set, and the predicted
     values were in good agreement with the exptl. results.  The final HQSAR
     model and the information obtained from HQSAR 2D contribution maps should
     be useful for the design of novel FXR ligands having improved potency.
ST   QSAR farnesoid X receptor activator
IT   Nuclear receptors
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (FXR (farnesoid X receptor), ligands;   ***hologram***   quant.
        structure-activity relationships for a series of farnesoid X receptor
        activators)
IT   Biliary tract, disease
        (cholestasis;   ***hologram***   quant. structure-activity
        relationships for a series of farnesoid X receptor activators)
IT   Lipids, biological studies
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (dyslipidemia;   ***hologram***   quant. structure-activity
        relationships for a series of farnesoid X receptor activators)
IT   Drug design
     QSAR (structure-activity relationship)
        (  ***hologram***   quant. structure-activity relationships for a
        series of farnesoid X receptor activators)
IT   Structure-activity relationship
        (receptor-binding;   ***hologram***   quant. structure-activity
        relationships for a series of farnesoid X receptor activators)
IT   592525-33-2
     RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
        (  ***Hologram***   quant. structure-activity relationships for a
        series of farnesoid X receptor activators)
IT   574005-62-2   574013-66-4   574013-67-5   592524-78-2   592524-79-3
     592524-80-6   592524-85-1   592524-86-2   592524-87-3   592524-88-4
     592524-89-5   592524-90-8   592524-91-9   592524-92-0   592524-93-1
     592524-94-2   592524-95-3   592524-96-4   592524-97-5   592524-98-6
     592525-01-4   592525-03-6   592525-04-7   592525-05-8   592525-07-0
     592525-08-1   592525-09-2   592525-10-5   592525-13-8   592525-14-9
     592525-15-0   592525-16-1   592525-21-8   592525-22-9   592525-23-0
     592525-25-2   592525-26-3   592525-27-4   592525-32-1   592525-35-4
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592525-36-5 592525-38-7 592525-39-8 592525-42-3 592525-43-4
592525-45-6 592525-47-8 592525-48-9 592525-49-0
592525-51-4 592525-52-5 592525-53-6 592525-55-8 592525-56-9
592525-57-0 592525-58-1 592525-59-2 592525-60-5 592525-61-6
592525-62-7 592525-64-9 592525-65-0 ***592525-67-2***
592525-70-7 592525-76-3 592525-77-4 592525-78-5 592525-79-6
592525-81-0 592525-82-1 592525-84-3 592525-85-4 592525-86-5
592525-89-8 592525-90-1 592525-91-2 592525-92-3 592525-93-4
592525-94-5 592525-96-7 592525-97-8 592525-98-9 592525-99-0
592526-01-7 592526-02-8 592526-04-0 592526-05-1 592526-07-3
592526-08-4 592526-09-5 592526-10-8 592526-11-9 592526-12-0
592526-15-3 858360-31-3 858360-33-5 858360-34-6 858360-35-7
858360-36-8
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(***hologram*** quant. structure-activity relationships for a series of farnesoid X receptor activators)
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Chen Da; Chemosphere 2004, V57, P1739 MEDLINE
(2) Chiang, J; J Hepatol 2004, V40, P539 CAPLUS
(3) Claudel, T; Exp Opin Invest Drugs 2004, V13, P1135 CAPLUS
(4) Fang, H; J Mol Struct (Theochem) 2003, V622, P113 CAPLUS
(5) Forman, B; Cell 1995, V81, P687 CAPLUS
(6) Francis, G; Annu Rev Physiol 2003, V65, P261 CAPLUS
(7) Khan, S; J Nutrit Biochem 2003, V14, P554 CAPLUS
(8) Mi, L; Mol Cell 2003, V11, P1093 CAPLUS
(9) Nicolaou, K; Org Biomol Chem 2003, V1, P908 CAPLUS
(10) Redinger, R; J Lab Clin Med 2003, V142, P7 CAPLUS
(11) So, S; J Comput Aided Mol Des 1999, V13, P243 CAPLUS
(12) Tripos Inc; HQSAR Manual, SYBYL 6.9.2 2003

L13 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:322870 CAPLUS
DN 142:400693
ED Entered STN: 15 Apr 2005
TI Fluoropolymer compositions for antisoiling optical members, and image display devices
IN Obayashi, Tatsuhiko
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 37 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08L101-00
ICS C08K005-00; G02B001-04; G02B001-11; G02B005-18; G02B005-30; G02F001-1335; H05B033-02; H05B033-14
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005097371	A2	20050414	JP 2003-330636	20030922

PRAI JP 2003-330636 20030922

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005097371	ICM	C08L101-00
	ICS	C08K005-00; G02B001-04; G02B001-11; G02B005-18; G02B005-30; G02F001-1335; H05B033-02; H05B033-14
JP 2005097371	FTERM	2H049/AA25; 2H049/AA40; 2H049/AA43; 2H049/AA62; 2H049/BA05; 2H049/BB42; 2H091/FA37X; 2H091/FB02; 2H091/FB12; 2H091/FB13; 2H091/FC01; 2H091/FC12; 2H091/FC14; 2H091/FD02; 2H091/FD06; 2H091/FD15; 2H091/FD23; 2H091/HA07; 2H091/HA08; 2H091/HA09; 2H091/HA10; 2H091/HA12; 2H091/KA10; 2H091/LA03; 2H091/LA30; 2K009/AA12; 2K009/BB28; 2K009/CC12; 2K009/CC26; 2K009/DD15; 3K007/AB11; 3K007/AB17; 3K007/BB06; 3K007/DB03; 4J002/AA04W; 4J002/BD11X; 4J002/BD14X; 4J002/BD15X; 4J002/BD16X; 4J002/BG05X; 4J002/BG07X; 4J002/BG08W; 4J002/BG13X; 4J002/CD12W;

4J002/CD19X; 4J002/ED046; 4J002/ED076; 4J002/EE039;
4J002/EE059; 4J002/EF038; 4J002/EG018; 4J002/EH039;
4J002/EH076; 4J002/EH079; 4J002/EK009; 4J002/EP016;
4J002/EP029; 4J002/EU048; 4J002/EU118; 4J002/EV238;
4J002/EV249; 4J002/EV258; 4J002/EV288; 4J002/EW048;
4J002/EW049; 4J002/EX037; 4J002/FD149; 4J002/FD150;
4J002/FD159; 4J002/FD160; 4J002/GP01; 4J002/HA05

AB The compns. are used for optical members (e.g., antireflective films, optical waveguides) having fine profile structures and F on their surfaces. The compns. give antireflective films showing good scratch resistance, useful for liq. crystal displays.

ST fluoropolymer optical waveguide antireflective device image display; polyoxypropylene decafluoroheptyl acrylate isocyanatoethyl methacrylate polymer; profile pattern acrylic fluoropolymer polyoxyalkylene LCD

IT Coupling agents
(F-contg. silanes; fluoropolymer compns. for antisoiling optical members of image display devices)

IT Surfactants
(F-contg.; fluoropolymer compns. for antisoiling optical members of image display devices)

IT Polyoxyalkylenes, preparation
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, fluorine-contg.; fluoropolymer compns. for antisoiling optical members of image display devices)

IT Fluoropolymers, preparation
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-; fluoropolymer compns. for antisoiling optical members of image display devices)

IT Antireflective films
Lenses
Liquid crystal displays
Optical disks
Optical imaging devices
Optical instruments
Optical waveguides
Polarizers
(fluoropolymer compns. for antisoiling optical members of image display devices)

IT Cards
(optical; fluoropolymer compns. for antisoiling optical members of image display devices)

IT ***Holography***
(relief; fluoropolymer compns. for antisoiling optical members of image display devices)

IT ***849819-45-0P*** ***849824-49-3P*** , 1H,1H,7H-Dodecafluoroheptyl acrylate-propylene oxide graft copolymer carbamate ester with 2-isocyanatoethyl methacrylate
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(comprised of actual and assumed monomers; fluoropolymer compns. for antisoiling optical members of image display devices)

IT 849819-47-2, Ethylene oxide-1H,1H-heptadecafluorononyl acrylate graft copolymer acrylate 849824-55-1, Ethylene oxide-1H,1H-nonafluoropentyl acrylate graft copolymer carbamate ester with 2-isocyanatoethyl methacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(comprised of actual and assumed monomers; fluoropolymer compns. for antisoiling optical members of image display devices)

IT ***849824-50-6P*** , Blemmer AP 400-1H,1H,7H-dodecafluoroheptyl acrylate graft copolymer carbamate ester with 2-isocyanatoethyl methacrylate, polymer with DPHA ***849824-51-7P*** , Blemmer AP 400-1H,1H,7H-dodecafluoroheptyl acrylate graft copolymer carbamate ester with 2-isocyanatoethyl methacrylate, polymer with DPHA and 2-hydroxyethyl methacrylate-isobornyl methacrylate-methyl methacrylate copolymer carbamate ester with Karenzu MOI 849824-56-2P, 1H,1H-Nonafluoropentyl acrylate-polyethylene glycol monoacrylate graft copolymer carbamate ester with 2-isocyanatoethyl methacrylate, polymer with DPHA and 2-hydroxyethyl methacrylate-isobornyl methacrylate-methyl methacrylate copolymer carbamate ester with Karenzu MOI 849824-59-5P ***849824-61-9P*** , 1H,1H-Nonafluoropentyl acrylate-polyethylene glycol monoacrylate graft

copolymer carbamate ester with 2-isocyanatoethyl methacrylate, polymer with DPHA and 2-hydroxyethyl vinyl ether-hexafluoropropylene copolymer acrylate
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluoropolymer compns. for antisoiling optical members of image display devices)

IT 535926-16-0P, 2-Hydroxyethyl methacrylate-isobornyl methacrylate-methyl methacrylate copolymer carbamate ester with Karenzu MOI 613687-03-9P 655247-42-0P, 2-Hydroxyethyl vinyl ether-hexafluoropropylene copolymer acrylate ***849819-44-9P*** , Blemmer AP 400-1H,1H,7H-dodecafluoroheptyl acrylate graft copolymer ***849824-48-2P*** , Blemmer AP 400-1H,1H,7H-dodecafluoroheptyl acrylate graft copolymer carbamate ester with 2-isocyanatoethyl methacrylate
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(fluoropolymer compns. for antisoiling optical members of image display devices)

IT 849824-53-9, 1H,1H-Nonafluoropentyl acrylate-polyethylene glycol monoacrylate-graft copolymer carbamate ester with 2-isocyanatoethyl methacrylate 849824-58-4, 1H,1H-Heptadecafluorononyl acrylate-polyethylene glycol monoacrylate graft copolymer acrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(fluoropolymer compns. for antisoiling optical members of image display devices)

L13 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:181531 CAPLUS
DN 142:249096
ED Entered STN: 04 Mar 2005
TI Volume ***holograms*** with wide viewing angle and high brightness and ***holographic*** materials therefor
IN Tone, Tetsuya; Otaki, Hiroyuki
PA Dainippon Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03H001-04
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005055596	A2	20050303	JP 2003-285043	20030801
PRAI JP 2003-285043		20030801		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005055596	ICM	G03H001-02
	ICS	G03F007-004; G03H001-04
JP 2005055596	FTERM	2H025/AA00; 2H025/AB14; 2H025/BH05; 2K008/AA13; 2K008/DD01; 2K008/DD13; 2K008/DD14; 2K008/FF03; 2K008/FF17; 2K008/HH02

AB The materials comprise three components A, B, and C sep. having refractive index of nA, nB, and nC and satisfy (i) |nA - nB| < |nA - nC| and (ii) |nB - nC| < |nA - nB|. The A are polymd. upon exposure to form interference fringes while B and C being insensitive to the light and undergoing phase sepn. of C from B. Otherwise, the C are polymd. upon the light exposure to form domains in B while A and B being insensitive to the light. The diffraction efficiency in the materials is large, resulting in formation of bright images.
ST vol ***hologram*** diffraction efficiency image brightness; fluoroglycidyl ether domain formation vol ***hologram*** ; viewing angle enlarged vol ***hologram*** diffraction efficiency
IT ***Holography***
Phase separation
(phase-sepg. ***holog*** . materials for vol. ***holograms*** with wide viewing angle and high brightness)
IT ***74328-56-6***
RL: TEM (Technical or engineered material use); USES (Uses)

(domain phase; phase-sepg. ***holog*** . materials for vol. ***holograms*** with wide viewing angle and high brightness)

IT 16096-31-4, 1,6-Hexanediol diglycidyl ether
RL: TEM (Technical or engineered material use); USES (Uses)
(phase-sepg. ***holog*** . materials for vol. ***holograms*** with wide viewing angle and high brightness)

IT 60651-25-4P, 2,2-Bis[4-(acryloxydiethoxy)phenyl]propane homopolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polymd. phase, interference fringes; phase-sepg. ***holog*** . materials for vol. ***holograms*** with wide viewing angle and high brightness)

L13 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:550176 CAPLUS
DN 141:114129
ED Entered STN: 09 Jul 2004
TI Photosensitive composition for volume ***holographic*** recording, photosensitive recording medium, and volume ***hologram***
IN Otaki, Hiroyuki; Yoshihara, Toshio; Maeno, Yoshito
PA Dainippon Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 35 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03F007-027
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004191919	A2	20040708	JP 2003-172518	20030617
	US 2004137334	A1	20040715	US 2003-615041	20030708
PRAI	JP 2002-204797	A	20020712		
	JP 2002-304672	A	20021018		
	JP 2003-172518	A	20030617		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004191919	ICM	G03H001-02
	ICS	G03F007-004; G03F007-027
JP 2004191919	FTERM	2H025/AA02; 2H025/AB14; 2H025/AC01; 2H025/AD01; 2H025/BC02; 2H025/BC12; 2H025/BC43; 2H025/BC83; 2H025/BD03; 2H025/BE00; 2H025/CA00; 2H025/CB00; 2H025/CC08; 2H025/CC20; 2K008/AA04; 2K008/DD11; 2K008/DD13; 2K008/FF17
US 2004137334	NCL	430/001.000
	ECLA	G03H001/02

AB Title compn. is characterized by contg. fluorine-contg. photosensitive compd. R1R3(CF2)nR4R2 (R1, R2 = photoreactive group; R3, R4 = single bond, C1-5 hydrocarbylene; n .gtoreq.1).
ST fluoropolymer vol ***holog*** recording medium
IT Silsesquioxanes
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)
IT Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(epoxy; photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)
IT Epoxy resins, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(fluorine-contg.; photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)
IT ***Holographic*** recording materials
Holography
(photosensitive compn. for vol. ***holog*** . recording,

photosensitive recording medium, and vol. ***hologram***)

IT Fluoropolymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)

IT 4369-14-6, KBM 5103
RL: TEM (Technical or engineered material use); USES (Uses)
(coupling agent for zirconia particles; photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)

IT ***271765-01-6P*** ***718646-71-0P*** ***718646-72-1P***
718646-73-2P ***718646-74-3P*** ***718646-75-4P***
718646-76-5P ***718646-77-6P*** ***718646-78-7P***
718646-81-2P ***718646-82-3P*** ***718646-83-4P***
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(***hologram*** ; photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)

IT 718646-79-8P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)

IT 9003-20-7, Polyvinyl acetate 25068-38-6, Epikote 1007 25167-42-4, Blemmer CP 50S 26570-48-9, Polyethylene glycol diacrylate 26657-28-3, Acrylic acid-ethyl acrylate-vinyl acetate copolymer 29317-10-0, Denacol EX 212 111775-13-4, Dianal BR 73 ***474094-16-1*** , E 7432
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)

IT 15625-89-5, Trimethylolpropane triacrylate ***74328-56-6***
104609-61-2 ***127194-99-4*** 161182-73-6 259881-39-5
718646-80-1
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive compn. for vol. ***holog*** . recording, photosensitive recording medium, and vol. ***hologram***)

L13 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:463235 CAPLUS
DN 141:181867
ED Entered STN: 09 Jun 2004
TI Structural transitions in ***holographic*** polymer-dispersed liquid crystals
AU Drevensek-Olenik, I.; Jazbinsek, M.; Sousa, M. E.; Fontecchio, A. K.; Crawford, G. P.; Copic, M.
CS Faculty of Mathematics and Physics, University of Ljubljana, Ljubljana, SI 1001, Slovenia
SO Physical Review E: Statistical, Nonlinear, and Soft Matter Physics (2004), 69(5-1), 051703/1-051703/10
CODEN: PRESCM
PB American Physical Society
DT Journal
LA English
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 73
AB Dynamic light scattering was used to analyze the structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings. Samples prepd. from two different types of prepolymer mixt.: one curable with visible (VIS) and another curable with UV light were investigated. In both formulations a crit. slowing down of thermal director fluctuations, signifying the second-order structural transition of the nematic director field was obsd. in the vicinity of some crit. external elec. field as well as close to some crit. temp. For VIS samples also the size and the shape of phase sepd. droplets and viscoelastic and surface anchoring parameters of the liq. cryst. (LC) material forming the droplets were deduced. The viscoelastic consts. were found to significantly deviate from the viscoelastic parameters of the pure LC mixt.

ST structural transition ***holog*** polymer dispersed liq crystal
IT Polyurethanes, properties
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); FORM (Formation, nonpreparative); PROC (Process)
(acrylates; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT Interfacial energy
(anchoring; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT Liquid crystals
(nematic; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT Polymerization
(photopolymn.; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT Autocorrelation function
Elastic deformation
Holographic diffraction gratings
Light scattering
Polymer-dispersed liquid crystals
Structural phase transition
Viscoelasticity
(structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT Liquid crystal displays
Optical instruments
(structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings in relation to)
IT Liquid crystals
(transitions; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT 103-01-5, Phenylglycine
RL: CAT (Catalyst use); USES (Uses)
(prepolymer mixt. co-initiator; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT 88-12-0, reactions
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(prepolymer mixt. contg.; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT 1338-43-8, S-271
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(prepolymer mixt. contg.; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT 103-11-7, 2-Ethylhexyl acrylate ***2160-89-6*** , Hexafluoroisopropyl acrylate 15625-89-5, Trimethylolpropane triacrylate 161107-74-0, PN 393
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(prepolymer mixt. contg.; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT 11121-48-5, Rose Bengal
RL: CAT (Catalyst use); USES (Uses)
(prepolymer mixt. initiator; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)
IT 143748-79-2, Ebecryl 4866 143748-80-5, Ebecryl 8301
RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(prepolymer mixt. oligomer; structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)

IT ***497166-03-7*** , 2-Ethylhexyl acrylate-Ebecryl 8301-trimethylolpropanetriacrylate-Hexafluoroisopropyl copolymer
735326-62-2 , Hexafluoroisopropyl acrylate-PN 393 copolymer
735340-92-8
RL: FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); FORM (Formation, nonpreparative); PROC (Process)
(structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)

IT 150522-90-0, Licrilite BL 038 164716-12-5, Licrilite TL 205
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); PROC (Process)
(structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)

IT 188132-75-4, TL203(liquid crystal)
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(structural and dynamic properties of nematic director field within liq. crystal domains formed in ***holog*** . polymer-dispersed liq. crystal transmission gratings)

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L13 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:878864 CAPLUS
DN 138:178120
ED Entered STN: 20 Nov 2002
TI Influence of partial matrix fluorination on morphology and performance of HPDLC transmission gratings
AU De Sarkar, Mousumi; Qi, Jun; Crawford, Gregory P.
CS Division of Engineering, Brown University, Providence, RI, USA
SO Polymer (2002), 43(26), 7335-7344
CODEN: POLMAG; ISSN: 0032-3861
PB Elsevier Science Ltd.
DT Journal
LA English
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
AB The morphol. and the electrooptical performance characteristics were investigated in ***holog*** . polymer-dispersed liq. crystal (HPDLC) transmission gratings with partially fluorinated polymer matrixes. HPDLC transmission gratings were prepd. using std. UV curable monomer mixts. along with monofunctional fluorinated acrylate monomers and a nematic liq. crystal, TL203. Partial fluorination of the host polymer matrixes by incorporating hexafluoroisopropyl acrylate (HFIPA) or trifluoroethyl acrylate (TFEA) in the std. formulation has been found to influence the morphol. and the electrooptical properties of the resulting HPDLC transmission gratings. Significant decrease in switching voltages and higher relaxation times were obsd. in fluorinated HPDLCs. Conversely, an addn. of Me acrylate (MA), a non-fluorinated monomer with a similar structure in the std. formulation, resulted in an increase in the switching voltage and produced no significant change in the relaxation time in the HPDLC gratings. Presence of fluorine atoms at the polymer-liq. crystal (LC) interface not only decreased the surface anchoring strength but also influenced the orientation of LC droplet directors.
ST matrix fluorination effect ***holog*** polymer dispersed liq crystal grating; electrooptical property ***holog*** polymer dispersed liq crystal transmission grating
IT Interfacial energy
(anchoring; morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
IT Polyurethanes, properties
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(fluorine-contg.; morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
IT Electrooptical effect
Holographic recording materials
Microstructure
Polymer-dispersed liquid crystals
(morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)

IT Polymerization
(photopolymn.; morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
IT Fluoropolymers, properties
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(polyurethane-; morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
IT ***Holographic*** diffraction gratings
(transmission; morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
IT 188132-75-4, TL203 (liquid crystal) ***497166-03-7*** 497166-05-9
497166-06-0
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
IT 189146-15-4, Darocur 4265
RL: CAT (Catalyst use); USES (Uses)
(prepolymer mixt.; morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
IT 96-33-3, Methyl acrylate 103-11-7, 2-Ethylhexyl acrylate 407-47-6, 2,2,2-Trifluoroethyl acrylate ***2160-89-6*** , Hexafluoroisopropyl acrylate 15625-89-5, Trimethylolpropane triacrylate 143748-80-5, Ebecryl 8301
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(prepolymer mixt.; morphol. and electrooptical performance of ***holog*** . polymer-dispersed liq. crystal transmission gratings as function of partial fluorination of matrix)
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L13 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:848252 CAPLUS
DN 137:343930
ED Entered STN: 08 Nov 2002
TI Light-sensitive composition for volume ***holographic*** recording media
IN Otaki, Hiroyuki; Yoshihara, Toshio
PA Dai Nippon Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03F007-027; G03H001-04
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2002323845	A2	20021108	JP 2001-239870	20010807
PRAI JP 2001-46436	A	20010222		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002323845	ICM	G03H001-02
	ICS	G03F007-004; G03F007-027; G03H001-04

AB The title compn. contains a binder polymer, a polymerizable compds. which contains F and .gtoreq.2 ethylenic unsatd. groups, and a photoradical polymn. initiator, wherein binder polymer and the polymerizable compds. have functional groups forming covalent bonds each other. The compn. provides the good refraction modulation and the high sensitivity.
ST light sensitive compn vol ***holog*** recording medium
IT Light-sensitive materials
(light-sensitive compn. for vol. ***holog*** . recording media)
IT ***Holographic*** recording materials
(vol.; light-sensitive compn. for vol. ***holog*** . recording media)
IT ***474094-16-1*** , E 7432
RL: TEM (Technical or engineered material use); USES (Uses)
(E 7432; light-sensitive compn. for vol. ***holog*** . recording media)
IT 947-19-3, Irgacure 184
RL: CAT (Catalyst use); USES (Uses)
(light-sensitive compn. for vol. ***holog*** . recording media)
IT 2785-02-6, NK 1473 244772-00-7, EHPE 3150
RL: TEM (Technical or engineered material use); USES (Uses)
(light-sensitive compn. for vol. ***holog*** . recording media)

L13 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:501555 CAPLUS
DN 137:202218
ED Entered STN: 03 Jul 2002
TI ***Holographic*** polymer dispersed liquid crystals: effect of partial matrix fluorination on electro-optical and morphological properties
AU Schulte, Michael D.; Clarson, Stephen J.; Natarajan, Lalgudi V.; Guymon, C. Allan; Bunning, Timothy J.
CS Department of MS&E, University of Cincinnati, Cincinnati, OH, 45221-0012, USA
SO Materials Research Society Symposium Proceedings (2002), 709(Advances in Liquid Crystalline Materials and Technologies), 211-216
CODEN: MRSPDH; ISSN: 0272-9172
PB Materials Research Society
DT Journal
LA English
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 75
AB ***Holog*** . polymer dispersed liq. crystal (H-PDLC) films with partially fluorinated matrixes were investigated. Electro-optical and morphol. studies revealed that fluorinated composites were substantially different from non-fluorinated analogs. The addn. of a fluorinated monofunctional acrylate monomer to a pentaacrylate-derived polymer matrix resulted in improved diffraction efficiency. These findings suggest that the partial fluorination of the host polymer decreases the compatibility between the matrix and liq. crystal phase. Morphol. differences between fluorinated films and non-fluorinated control specimens were verified using low-voltage, high-resoln. SEM (LVHRSEM).
ST ***holog*** polymer dispersed liq crystal fluorination electrooptical morphol
IT Fluoropolymers, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES

(Uses)
(acrylic; effect of partial matrix fluorination on electro-optical and morphol. properties ***holog*** . polymer dispersed liq. crystals)
IT Electrooptical effect
Polymer morphology
Polymer-dispersed liquid crystals
(effect of partial matrix fluorination on electro-optical and morphol. properties ***holog*** . polymer dispersed liq. crystals)
IT Acrylic polymers, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fluorine-contg.; effect of partial matrix fluorination on electro-optical and morphol. properties ***holog*** . polymer dispersed liq. crystals)
IT ***267874-36-2*** , Dipentaerythritol pentaacrylate-hexafluoroisopropyl acrylate-methyl acrylate-pentaerythritol tetraacrylate copolymer
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(effect of partial matrix fluorination on electro-optical and morphol. properties ***holog*** . polymer dispersed liq. crystals)
IT 63748-28-7, E 7
RL: TEM (Technical or engineered material use); USES (Uses)
(liq.-cryst.; effect of partial matrix fluorination on electro-optical and morphol. properties ***holog*** . polymer dispersed liq. crystals)
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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L13 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:229711 CAPLUS
DN 137:13164
ED Entered STN: 27 Mar 2002
TI Polymers for ***holographic*** imaging and displays
AU Kippelen, Bernard; Domercq, Benoit; Herlocker, Jon A.; Hrera, Richard D.; Haddock, Joshua N.; Fuentes-Hernandez, Canek; Ramos-Ortiz, Gabriel; Blanche, Pierre A.; Peyghambarian, Nasser; Schulzgen, Axel; Zhang, Yadong; Marder, Seth R.
CS Optical Sci. Center, Univ. Arizona, Tucson, AZ, 85721, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2002), 43(1), 158-159
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal; (computer optical disk)
LA English
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 73
AB Several novel photorefractive polymers that are sensitized by two-photon absorption have been developed. ***Holog*** . recording via four-wave mixing was performed in photorefractive polymer composite which consists of poly(vinylvarbazole) photoconducting matrix, an electroactive chromophore, N-ethylcarbazole and benzylbutyl phthalate plasticizers. Photorefractive polymers were also fabricated by injection molding, demonstrating the possible mass-prodn. of such materials using std. plastic processing techniques. The material for injection-molding consists of OZ-1330, 2,N,N-dihexylamino-7-dicyanomethylidenenyl-3,4,5,6,10-pentahydronaphthalene, (2,4,7-trinitro-9-fluorenylidene)malonitrile sensitizer and di-Ph isophthalate plasticizer. Non-destructive read-out was achieved by recording ***holograms*** with high intensity femtosecond pulses and by reading them out with low power continuous wave beams at the same wavelength. Efficient and stable org. light-emitting

diodes were fabricated with novel substituted photocrosslinkable hole transport polymers based upon copolymn. of substituted bis(diarylamino)biphenyl acrylate monomers and cinnamate acrylate .

ST photorefractive polymer composite two photon absorption ***holog*** imaging display; injection molding photorefractive polymer ***holog*** recording; photocrosslinkable hole transport polymer photoimaging light emitting diode fabrication

IT Crosslinking
(photochem.; photocrosslinkable hole transport polymers sensitized by two-photon absorption for ***holog*** . fabrication of light-emitting diodes)

IT Electroluminescent devices
Photoimaging materials
Photolithography
(photocrosslinkable hole transport polymers sensitized by two-photon absorption for ***holog*** . fabrication of light-emitting diodes)

IT Four wave mixing
Holographic recording materials
Photorefractive materials
(photorefractive polymers and composites sensitized by two-photon absorption for ***holog*** . imaging and displays)

IT Two-photon absorption
(photorefractive polymers sensitized by two-photon absorption for ***holog*** . imaging and displays)

IT 179600-32-9, Benzyl methacrylate-tricyclodecyl methacrylate-N-cyclohexylmaleimide-methyl methacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(OZ-1330; ***holog*** . photorefractive polymer composite sensitized by two-photon absorption for injection molding)

IT 50926-11-9, ITO
RL: DEV (Device component use); USES (Uses)
(anode; photocrosslinkable hole transport polymers sensitized by two-photon absorption for ***holog*** . fabrication of light-emitting diodes)

IT 37271-44-6
RL: DEV (Device component use); USES (Uses)
(cathode; photocrosslinkable hole transport polymers sensitized by two-photon absorption for ***holog*** . fabrication of light-emitting diodes)

IT 238426-61-4
RL: TEM (Technical or engineered material use); USES (Uses)
(electroactive chromophore; photorefractive polymer composite sensitized by two-photon absorption for ***holog*** . recording)

IT 200952-56-3, 2-N,N-Dihexylamino-7-dicyanomethylidenenyl-3,4,5,6,10-pentahydronaphthalene
RL: TEM (Technical or engineered material use); USES (Uses)
(***holog*** . photorefractive polymer composite sensitized by two-photon absorption for injection molding)

IT 433716-27-9 433716-28-0 433716-29-1 ***433716-30-4***
RL: NUU (Other use, unclassified); USES (Uses)
(monomer; photoimaging compn. using photocrosslinkable hole transport polymers for fabrication of light-emitting diodes)

IT 433716-31-5
RL: TEM (Technical or engineered material use); USES (Uses)
(photocrosslinkable hole transport polymers sensitized by two-photon absorption for fabrication of light-emitting diodes)

IT 2085-33-8, AlQ3
RL: DEV (Device component use); USES (Uses)
(photocrosslinkable hole transport polymers sensitized by two-photon absorption for ***holog*** . fabrication of light-emitting diodes)

IT 25067-59-8, Poly(vinylcarbazole)
RL: TEM (Technical or engineered material use); USES (Uses)
(photorefractive polymer composite sensitized by two-photon absorption for ***holog*** . recording)

IT 744-45-6, Diphenyl isophthalate
RL: NUU (Other use, unclassified); USES (Uses)
(plasticizer; ***holog*** . photorefractive polymer composite sensitized by two-photon absorption for injection molding)

IT 85-68-7, Benzylbutyl phthalate 86-28-2, N-Ethylcarbazole
RL: NUU (Other use, unclassified); USES (Uses)
(plasticizer; photorefractive polymer composite sensitized by two-photon absorption for ***holog*** . recording)

IT 1172-02-7
RL: TEM (Technical or engineered material use); USES (Uses)
(sensitizer; ***holog*** . photorefractive polymer composite sensitized by two-photon absorption for injection molding)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Blanche, P; Opt Lett (in press)
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L13 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:672960 CAPLUS
DN 135:372357
ED Entered STN: 14 Sep 2001
TI Monomer diffusion assisted preparation of polymer gratings: A nuclear microprobe study
AU Leewis, C. M.; Mutsaers, P. H. A.; de Jong, A. M.; van IJzendoorn, L. J.; Broer, D. J.; de Voigt, M. J. A.
CS Department of Applied Physics, Accelerator Laboratory, Eindhoven University of Technology, Eindhoven, 5600 MB, Neth.
SO Nuclear Instruments & Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms (2001), 181, 367-371
CODEN: NIMBEU; ISSN: 0168-583X
PB Elsevier Science B.V.
DT Journal
LA English
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 73
AB Polymers with an ordered mol. structure can be applied in optical systems for e.g. data transport, data storage and displays. Patterned UV photo-polymn. is used to prep. polymer gratings from a mixt. of two acrylate monomers. A 3 MeV proton microprobe is used to study these gratings, prepd. from two different monomers, each contg. a different easily detectable label element, e.g. Cl, Si or F. During the prepn. process, the difference in reactivity and mobility of these two monomers in combination with polymer-monomer interaction results in diffusion of monomers. Since this diffusion process takes place on length scales of micrometers, a scanning ion microprobe is a powerful tool for the quant. anal. of the polymer films, obtained after complete polymn. The microprobe is equipped with PIXE, PIGE and RBS, to quantify both the label elements and C and O. This makes it possible to det. the concn. of monomer units as a function of position and thus to study the diffusion process. Two combinations of different monomers are studied. In the case of a 0.5:1 mixt. of a monofunctional and a difunctional monomer, both monomers migrate to the illuminated areas and large thickness variations are obsd. When a 1:1 mixt. of two difunctional monomers is used, opposite migration of the two monomers is obsd., while the film shows no variation in thickness.
ST monomer diffusion prepn polyacrylate grating
IT Diffusion
Holographic diffraction gratings
(nuclear microprobe study of monomer diffusion assisted prepn. of polyacrylate gratings)
IT Polymerization
(photochem., radical; nuclear microprobe study of monomer diffusion assisted prepn. of polyacrylate gratings)
IT 2206-89-5, 2-Chloroethyl acrylate 18547-93-8 ***108050-41-5***
RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(monomer; nuclear microprobe study of monomer diffusion assisted prepn. of polyacrylate gratings)
IT 270569-88-5P 374551-78-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(nuclear microprobe study of monomer diffusion assisted prepn. of polyacrylate gratings)
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L13 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:365448 CAPLUS
DN 133:112339
ED Entered STN: 01 Jun 2000
TI The effect of fluorine-substituted acrylate monomers on the electrooptical and morphological properties of polymer dispersed liquid crystals
AU Schulte, M. D.; Clarson, S. J.; Natarajan, L. V.; Tomlin, D. W.; Bunning, T. J.
CS Air Force Research Laboratory, Materials and Manufacturing Directorate/MLPJ WPAFB, OH, 45433-7702, USA
SO Liquid Crystals (2000), 27(4), 467-475
CODEN: LICRE6; ISSN: 0267-8292
PB Taylor & Francis Ltd.
DT Journal
LA English
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 75
AB The effects of fluorinated acrylate monomers on the electrooptical and morphol. properties of polymer dispersed liq. crystal (PDLC) films are reported. The partial fluorination of host polymer matrixes resulted in improved optical properties and better defined morphologies. An enhancement in contrast ratio was obsd. for fluorinated systems contg. trifluoroethyl acrylate (TFEA) and hexafluoroisopropyl acrylate (HFIPA). Conversely, the incorporation of Me acrylate (MA), a chem. similar non-fluorinated acrylate, resulted in no appreciable change in contrast ratio and an increase in relaxation time. SEM morphol. studies were conducted to understand further the influence of fluorinated monomers in PDLC systems.
ST fluorinated acrylate monomer electrooptical property polymer dispersed liq crystal
IT Liquid crystals
(fluorine-substituted acrylate monomers effect on electrooptical and morphol. properties of polymer dispersed liq. crystals)
IT ***Holographic*** recording materials
Liquid crystal displays
(fluorine-substituted acrylate monomers effect on electrooptical and morphol. properties of polymer dispersed liq. crystals in relation to)
IT Electrooptical effect
Optical transmission
Refractive index
(fluorine-substituted acrylate monomers effect on electrooptical and morphol. properties of polymer dispersed liq. crystals prepd. from mixt. contg.)
IT 103-01-5, N-Phenylglycine
RL: CAT (Catalyst use); USES (Uses)
(co-initiator; fluorine-substituted acrylate monomers effect on electrooptical and morphol. properties of polymer dispersed liq. crystals prepd. from mixt. contg.)
IT 63748-28-7, E7(Liquid crystal)
RL: PRP (Properties)
(fluorine-substituted acrylate monomers effect on electrooptical and morphol. properties of polymer dispersed liq. crystals)
IT ***258887-30-8*** , 1,1,1,3,3,3-Hexafluoroisopropyl acrylate-dipentaerythritol pentaacrylate-pentaerythritol tetraacrylate-1-vinyl-2-pyrrolidinone copolymer 284036-10-8, Methyl methacrylate-dipentaerythritol pentaacrylate-pentaerythritol tetraacrylate-1-vinyl-2-pyrrolidinone copolymer 284036-11-9, 2,2,2-Trifluoroethyl acrylate-dipentaerythritol pentaacrylate-pentaerythritol tetraacrylate-1-vinyl-2-pyrrolidinone copolymer
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(fluorine-substituted acrylate monomers effect on electrooptical and

morphol. properties of polymer dispersed liq. crystals)
IT 88-12-0, 1-Vinyl-2-pyrrolidinone, uses 96-33-3 407-47-6, 2,2,2-Trifluoroethyl acrylate ***2160-89-6*** 60506-81-2, Dipentaerythritol pentaacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(fluorine-substituted acrylate monomers effect on electrooptical and morphol. properties of polymer dispersed liq. crystals prepd. from mixt. contg.)
IT 11121-48-5, Rose Bengal
RL: CAT (Catalyst use); USES (Uses)
(initiator; fluorine-substituted acrylate monomers effect on electrooptical and morphol. properties of polymer dispersed liq. crystals prepd. from mixt. contg.)
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L13 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:208187 CAPLUS
DN 132:341078
ED Entered STN: 31 Mar 2000
TI The effect of fluorinated acrylate monomer on the performance of ***holographic*** PDLCs

AU Schulte, Michael D.; Clarson, Stephen J.; Natarajan, Lalgudi V.; Tondiglia, Vincent P.; Tomlin, David W.; Bunning, Timothy J.
CS Air Force Research Laboratory, Materials and Manufacturing Directorate/MLPJ, WPAFB, OH, 45433-7702, USA

SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2000), 41(1), 348-349
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal
LA English

CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 73

AB The electro-optical and morphol. properties of reflection ***holograms*** was shown to be influenced by the addn. of fluorinated monomers to the std. pentaacrylate-based formulation. Partial matrix fluorination via HFIPA addn. resulted in increased LC vol. fraction and therefore, improved diffraction efficiency. Although the addn. of MA as a control monomer resulted in a slight improvement in off-state optical properties, there was no obvious increase in the LC vol. fraction. The increase in diffraction efficiency was therefore believed to be due to increased regularity of the polymer/LC planes. The threshold voltage was shown to increase with partial matrix fluorination which was a trend

consistent with floodlit films discussed previously. The most suitable explanation for this observation is that incorporation of fluorine into the host matrix increases the inherent resistivity, thus decreasing the cond. of the matrix or increasing the LC anchoring strength.

ST electrooptical property ***holog*** polymer dispersed liq crystal fluorinated acrylate

IT Electrooptical effect
Holography
Liquid crystals
(electrooptical properties of ***holograms*** recorded in polymer dispersed liq. crystal films based on photopolymg. contg. fluorinated acrylate monomer)

IT Electrooptical switches
(electrooptical properties of ***holograms*** recorded in polymer dispersed liq. crystal films based on photopolymg. contg. fluorinated acrylate monomer in relation to)

IT ***Holographic*** diffraction gratings
(reflection; electrooptical properties of ***holograms*** recorded in polymer dispersed liq. crystal films based on photopolymg. contg. fluorinated acrylate monomer)

IT 63748-28-7
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(E7; electrooptical properties of ***holograms*** recorded in polymer dispersed liq. crystal films based on photopolymg. contg. fluorinated acrylate monomer)

IT 103-01-5, N-Phenylglycine
RL: CAT (Catalyst use); USES (Uses)
(co-initiator; electrooptical properties of ***holograms*** recorded in polymer dispersed liq. crystal films based on photopolymg. contg. fluorinated acrylate monomer)

IT 88-12-0, uses 96-33-3, Methyl acrylate ***2160-89-6*** , Hexafluoroisopropyl acrylate 4986-89-4, Pentaerythritol tetraacrylate 60506-81-2, Dipentaerythritol pentaacrylate ***267874-36-2*** , Dipentaerythritol pentaacrylate-hexafluoroisopropyl acrylate-methyl acrylate-pentaerythritol tetraacrylate copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(electrooptical properties of ***holograms*** recorded in polymer dispersed liq. crystal films based on photopolymg. contg. fluorinated acrylate monomer)

IT 11121-48-5, Rose Bengal
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; electrooptical properties of ***holograms*** recorded in polymer dispersed liq. crystal films based on photopolymg. contg. fluorinated acrylate monomer)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Craighead, H; Applied Physics Letters 1982, V40, P22 CAPLUS
(2) Drzaic, P; Proc SPIE 1989, V1080, P11 CAPLUS
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L13 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:50105 CAPLUS
DN 132:115265
ED Entered STN: 21 Jan 2000

TI Polymerizable mesogenic fluorophenylenes

IN Farrand, Louise Diane; Egan, Gabrielle Frances
PA Merck Patent G.m.b.H., Germany

SO Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C09K019-30
ICS C07C069-653; C09K019-38
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 75

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	EP 972818	A1	20000119	EP 1999-112783	19990702
	EP 972818	B1	20030507		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6183822	B1	20010206	US 1999-353626	19990715
PRAI	EP 1998-113151	A	19980715		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 972818	ICM	C09K019-30
	ICS	C07C069-653; C09K019-38
EP 972818	ECLA	C07C069/653; C09K019/30A1; C09K019/38B4B
US 6183822	NCL	428/001.100; 252/299.630; 252/299.670; 349/002.000; 428/001.550; 560/065.000; 570/128.000; 570/131.000; 570/133.000
	ECLA	C07C069/653; C09K019/30A1; C09K019/38B4B

OS MARPAT 132:115265

GI

/ Structure 62 in file .gra /

AB Polymerizable mesogenic fluorophenylenes of formula I [P = CH2=CWCO2, WCH=CHO, CH2=CH(O)k, or II where W = H, CH3, or Cl and k = 0 or 1; Sp = a spacer group having 1-25 C atoms; X = O, S, CO, CO2, OCO, CONH, NHCO, CH2CH2, OCH2, SCH2, CH2O, CH2S, CH=CH, CH=CHCO2, OCHCH=CH, C=C, or a single bond; n = 0 or 1; L = H or F; Z1, Z2 = CO2, OCO, CH2CH2, OCH2, CH2O, OCH2O, or a single bond; A, B = p-phenylene, III, IV, or V where L1, L2 = H or F; m = 0, 1, or 2; and R = H, CN, halogen, or alkyl which has up to 25 C atoms and may be substituted by halogens or CN with the proviso that one or more of the nonadjacent CH2 groups may replaced by O, S, NH, N(CH3), CO, CO2, OCO, OCO2, SCO, COS, or C=C in such a manner that O atoms are not linked directly to each other or alternatively R is denoting P(SpX)n] are disclosed. The polymerizable mesogenic fluorophenylenes are used in prepg. linear or crosslinked liq.-cryst. polymers for fabrication of electrooptical display devices, polarizers, compensators, alignment layers, color filters, or ***holog*** . elements.

ST polymerizable mesogenic fluorophenylene liq crystal display device

IT Optical filters
(color; polymerizable mesogenic fluorophenylenes for fabrication of)

IT Liquid crystals, polymeric
(mesogenic fluorophenylenes for prepn. of)

IT ***Holography***
(polymerizable mesogenic fluorophenylenes for)

IT Liquid crystal displays
Optical modulators
Polarizers
(polymerizable mesogenic fluorophenylenes for fabrication of)

IT ***255386-66-4P*** ***255386-67-5P*** ***255386-69-7P***
255386-70-0P ***255386-72-2P*** ***255386-73-3P***
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. and reaction in prepg. polymeric liq. crystals for display devices)

IT 255386-68-6P
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(reaction in prepg. polymerizable mesogenic fluorophenylene compd. for prepg. polymeric liq. crystals for display devices)

IT 625-36-5, 3-Chloropropionyl chloride 627-18-9 145767-70-0
255386-65-3
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(reaction in prepg. polymerizable mesogenic fluorophenylene compd. for prepg. polymeric liq. crystals for display devices)

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD

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(2) Merck Patent Gmbh; DE 19504224 A 1995 CAPLUS
(3) Merck Patent Gmbh; GB 2280445 A 1995 CAPLUS
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L13 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:641917 CAPLUS
DN 121:241917
ED Entered STN: 12 Nov 1994
TI volume ***hologram*** and its formation
IN Sugawara, Satoko; Nishide, Riichi; Ishii, Kazuhiko; Shimura, Katsunori
PA Nissan Motor, Japan; Nippon Kayaku Kk
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03F007-027
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05273899	A2	19931022	JP 1992-68116	19920326

PRAI JP 1992-68116 19920326
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05273899	ICM	G03H001-02
	ICS	G03F007-004; G03F007-027

GI

/ Structure 63 in file .gra /

AB In the title ***holog*** . in which interference pattern is recorded by having distributions of .gtoreq.2 compds. of different n's, the compd. of lower n is based on an F-contg. compd. selected from CnF2n+1CH2CH(OH)CH2OC(O)CR=CH2 (R = H, Me; n = 1-10), CH2=CRCO2(CH2)n(CF2)4(CH2)nOC(O)CR=CH2 (R = H, Me; n = 1, 2), CnF2n+1CH2CHYCH2Y (Y = -OC(O)CR=CH2; R = H, Me; n = 1-10), and I (R = H, Me; X = (CH2)6, II, methylphenylene, III; n = 1-10). A ***holog*** . is formed by exposing a recording material comprising a polymer binder, a photopolymerizable compd. and a photoinitiator to a laser interference pattern, developing the exposed material with a developing soln. contg. a photo- or thermo-polymerizable compd., and curing by heat or light, wherein either the photopolymerizable compd. contained in the recording material or the photo- or thermo-polymerizable compd. in the developing soln. is based on an F-contg. compd. defined above. High efficiency vol. ***hologs*** . are obtained.
ST ***holog*** formation photopolymn
IT ***Holography***
(vol. phase type, photopolymn. using)
IT ***118643-50-8*** 140369-65-9 146955-22-8 157860-99-6
RL: USES (Uses)
(developing soln. contg., for vol. ***holog*** . formation)

L13 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:641438 CAPLUS
DN 121:241438
ED Entered STN: 12 Nov 1994
TI ***hologram*** materials and manufacture of ***holograms***
IN Ishizuka, Takeshi; Tsukamoto, Koji
PA Fujitsu Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03F007-027
CC 73-12 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 74
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06067588	A2	19940311	JP 1992-216858	19920814

PRAI JP 1992-216858 19920814
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 06067588	ICM	G03H001-02
	ICS	G03F007-004; G03F007-027

AB The manufg. process comprises the steps of: forming a 1st sol. contg. a 1st mixt. of (I) R1CH:CHCOOR2 (0-40 parts), (II) R3CH:CHCOOR4 (40-50 parts) and a thermopolymn. initiator; forming a 2nd sol. consisting of a heat-treated 1st sol. and a 2nd mixt. contg. 40-150 parts of (II') and a photopolymn. initiator; coating a substrate with the 2nd sol.; exposing the coated substrate to a laser interference beam for forming a photopolymd. ***holog*** . pattern (n = n1) in the coating; and heating the coating for thermally polymg. the remainder (n = n2 < n1), wherein R1,3 = H, Me; R2 = F-contg. C1-4 chain group; R4 = C1-4 chain group, aliph. ring; and (II') is (II) contg. .gtoreq.1 arom. group. The process forms highly diffractive ***holograms*** with a markedly improved throughput.
ST ***hologram*** high contrast differential refractive polymer
IT ***Holography***
(differential-diffractive high contrast ***holograms*** , by dual copolymn.)
IT 129567-38-0, Methyl methacrylate-trifluoroethyl methacrylate copolymer
154170-80-6 158320-92-4 158320-93-5 158320-94-6 158320-95-7
158320-96-8 158320-97-9 158320-98-0 ***158320-99-1***
158321-00-7
RL: USES (Uses)
(differential-diffractive high-contrast ***holograms*** from, manuf. of)

L13 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:496168 CAPLUS
DN 121:96168
ED Entered STN: 20 Aug 1994
TI ***Hologram*** -forming material and manufacture of ***hologram*** using same
IN Ishizuka, Takeshi; Tsukamoto, Koji; Kuramitsu, Yoko
PA Fujitsu Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G02B001-04; G03C001-73; G03C009-08; G03F007-004; G03F007-027; G03F007-028; G03F007-038
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05210344	A2	19930820	JP 1992-15830	19920131

PRAI JP 1992-15830 19920131
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05210344	ICM	G03H001-02
	ICS	G02B001-04; G03C001-73; G03C009-08; G03F007-004; G03F007-027; G03F007-028; G03F007-038

AB The title material comprises a liq. F-contg. polymerizable monomer selected from F-contg. (meth)acrylates, a polymer having carbazole rings, and a photopolymn. initiator. The title manuf. comprises the steps of

coating on a transparent substrate with a photosensitive liq. in which the above ***hologram*** -forming material is dissolved in a solvent having a b.p. lower than that of the F-contg. polymerizable monomer, drying the solvent to form a photosensitive film, covering the photosensitive film with an optional transparent substrate or transparent film, and irradiating with a recording light pattern. The material provides ***holograms*** having high diffraction efficiency.

ST ***hologram*** material fluorinated acrylate methacrylate; photopolymn compn vol phase ***hologram***

IT ***Holography***
(***hologram*** , vol.-phase, polymerizable fluorinated (meth)acrylate for)

IT 75-09-2, Dichloromethane, uses 109-99-9, THF, uses 352-87-4, 2, 2, 2-Trifluoroethyl methacrylate 407-47-6, 2, 2, 2-Trifluoroethyl acrylate ***2160-89-6*** , Hexafluoroisopropyl acrylate ***3063-94-3*** , 1, 1, 1, 3, 3, 3-Hexafluoroisopropyl methacrylate ***7383-71-3*** , 2, 2, 3, 3-Tetrafluoropropyl acrylate 25067-59-8, Poly(N-vinylcarbazole) 25067-59-8D, Poly(N-vinylcarbazole), brominated ***45102-52-1*** , 2, 2, 3, 3-Tetrafluoropropyl methacrylate
RL: USES (Uses)
(photopolymn. compn. contg., for ***hologram***)

L13 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:496167 CAPLUS
DN 121:96167
ED Entered STN: 20 Aug 1994
TI ***Hologram*** -forming material and manufacture of ***hologram*** using same
IN Ishizuka, Takeshi; Tsukamoto, Koji; Kuramitsu, Yoko
PA Fujitsu Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G02B001-04; G03C001-73; G03C009-08; G03F007-004; G03F007-027; G03F007-028; G03F007-038
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05210343	A2	19930820	JP 1992-15829	19920131
PRAI JP 1992-15829		19920131		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05210343	ICM	G03H001-02
	ICS	G02B001-04; G03C001-73; G03C009-08; G03F007-004; G03F007-027; G03F007-028; G03F007-038

AB The title material comprises a liq. F-contg. polymerizable monomer selected from F-contg. (meth)acrylates, a polymer having naphthalene rings, and a photopolymn. initiator. The title manuf. comprises the steps of coating on a transparent substrate with a photosensitive liq. in which the above ***hologram*** -forming material is dissolved in a solvent having a b.p. lower than that of the F-contg. polymerizable monomer, drying the solvent to form a photosensitive film, covering the photosensitive film with an optional transparent substrate or transparent film, and irradiating with a recording light pattern. The material provides ***holograms*** having high diffraction efficiency.

ST ***hologram*** material fluorinated acrylate methacrylate; photopolymn compn vol phase ***hologram***

IT ***Holography***
(***hologram*** , vol.-phase, polymerizable fluorinated (meth)acrylate for)

IT 75-09-2, Dichloromethane, uses 109-99-9, THF, uses 352-87-4, 2, 2, 2-Trifluoroethyl methacrylate 407-47-6, 2, 2, 2-Trifluoroethyl acrylate ***2160-89-6*** , Hexafluoroisopropyl acrylate ***3063-94-3*** , 1, 1, 1, 3, 3, 3-Hexafluoroisopropyl methacrylate ***7383-71-3*** , 2, 2, 3, 3-Tetrafluoropropyl acrylate 25135-12-0, Poly(1-vinylnaphthalene) 28406-56-6, Poly(2-vinylnaphthalene) ***45102-52-1*** , 2, 2, 3, 3-Tetrafluoropropyl methacrylate

RL: USES (Uses)
(photopolymn. compn. contg., for ***hologram***)

L13 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:469688 CAPLUS
DN 121:69688
ED Entered STN: 06 Aug 1994
TI Composition for ***holographic*** recording material and method for forming ***hologram***
IN Ishizuka, Takeshi; Tsukamoto, Koji; Kuramitsu, Yoko
PA Fujitsu Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03H001-02
ICS G03F007-004; G03F007-027; G03F007-028
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05257416	A2	19931008	JP 1992-58046	19920316
PRAI JP 1992-58046		19920316		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05257416	ICM	G03H001-02
	ICS	G03F007-004; G03F007-027; G03F007-028

AB The title compn. comprises (1) .gtoreq.1 polysulfones 100 parts, (2) F-contg. polymerizable monomers R1CH=CHCO2R2 [R1 = H, Me; R2 = F-substituted C2-4 alkyl] 10-140 parts, (3) an epoxy compd. contg. arom. ring, Br or I 10-140 parts, and (4) a photopolymn. initiator 0.1-20 parts. A ***hologram*** is formed by dissolving the above compn. in a solvent of b.p. .ltoreq.80.degree., coating a transparent substrate with the soln., drying the coated film, and exposing to an interference pattern.
ST ***holog*** formation photosensitive compn
IT ***Holography***
(photosensitive compn. for, photopolymn. using)
IT 352-87-4, 2,2,2-Trifluoroethyl methacrylate 407-47-6, 2,2,2-Trifluoroethyl acrylate ***2160-89-6*** ***3063-94-3*** , 1,1,1,3,3,3-Hexafluoroisopropyl methacrylate 25135-51-7, Udel P 1800NT ***45102-52-1*** , 2,2,3,3-Tetrafluoropropyl methacrylate 53050-88-7, Dibromophenyl glycidyl ether
RL: USES (Uses)
(photosensitive compn. from, for ***holog*** . recording)

L13 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:113256 CAPLUS
DN 118:113256
ED Entered STN: 19 Mar 1993
TI Light-sensitive polymer solution for refractive index-modulating ***hologram***
IN Sugawara, Satoko
PA Nissan Motor Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-027
ICS G03F007-004; G03F007-028; G03H001-02
CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04188141	A2	19920706	JP 1990-315876	19901122
PRAI JP 1990-315876		19901122		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 04188141	ICM	G03F007-027

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                ICS    G03F007-004; G03F007-028; G03H001-02
AB   The title soln. comprises (A) liq. unsatd. ethylenic monomer (at 1 atm.,
     20-100.degree.) 100, (B) binder polymer 50-150, (C) F- or Br-contg.
     unsatd. ethylenic monomer with n difference (from A) .gtoreq.0.4 30-100,
     and (D) photopolymn. initiator and visible sensitizing dye 0.05-10 parts.
ST     ***hologram***   refractive index photopolymn soln
IT     ***Holography***
        (refractive index-modulating photopolymerizable compn. for)
IT   146168-54-9   ***146168-55-0***
     RL: USES (Uses)
        (refractive index-modulating   ***hologram***   compn. contg.)
IT   77473-08-6
     RL: USES (Uses)
        (refractive index-modulating   ***hologram***   compn. contg.,
       photoinitiator)
IT   63226-13-1
     RL: USES (Uses)
        (refractive index-modulating   ***hologram***   compn. contg.,
       sensitizer)

L13  ANSWER 20 OF 20  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   1993:90971  CAPLUS
DN   118:90971
ED   Entered STN:  02 Mar 1993
TI     ***Holographic***   recording media
IN   Toshida, Yoshi; Yoshinaga, Yoko; Fukui, Tetsuro; Okuma, Norio; Taniguchi,
     Takasato; Majima, Toshiaki
PA   Canon K. K., Japan
SO   Jpn. Kokai Tokkyo Koho, 7 pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
IC   ICM  G03H001-02
     ICS  G03F007-027; G03F007-029
CC   74-8 (Radiation Chemistry, Photochemistry, and Photographic and Other
     Reprographic Processes)
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   JP 04166882           A2    19920612    JP 1990-291885          19901031
PRAI JP 1990-291885               19901031
CLASS
 PATENT NO.       CLASS  PATENT FAMILY CLASSIFICATION CODES
 --------------   -----  ----------------------------------------------
 JP 04166882      ICM    G03H001-02
                  ICS    G03F007-027; G03F007-029
AB   The title media comprise photopolymerizable compns. contg. monomers whose
     hardened materials have a n .ltoreq.1.45.
ST     ***hologram***   recording medium photopolymerizable compn
IT     ***Holography***
        (fluoropolymer compns., for recording)
IT   Vinyl acetal polymers
     RL: USES (Uses)
        (butyrals, binders,   ***hologram***   recording media contg.)
IT   Recording materials
        (optical, fluoropolymer compn.,   ***holog***  .)
IT   145995-89-7   ***145995-90-0***     145995-92-2
     RL: USES (Uses)
        (  ***hologram***   recording media contg.)


=> d his

     (FILE 'HOME' ENTERED AT 16:14:20 ON 30 AUG 2005)

     FILE 'CAPLUS' ENTERED AT 16:14:26 ON 30 AUG 2005
L1             1 S US 20040137334/PN

     FILE 'REGISTRY' ENTERED AT 16:14:49 ON 30 AUG 2005

     FILE 'CAPLUS' ENTERED AT 16:14:54 ON 30 AUG 2005
L2             TRA L1 1- RN :       29 TERMS
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   FILE 'REGISTRY' ENTERED AT 16:14:54 ON 30 AUG 2005
L3            29 SEA L2
L4            16 S L3 AND (DODECAFLUORO? OR OCTAFLUORO?)
L5         10807 S (OXIRANE OR PROPENOIC) AND (DIFLUORO OR TETRAFLUORO OR HEXAFL
L6         10807 S (OXIRANE OR PROPENOIC) AND (DIFLUORO? OR TETRAFLUORO? OR HEXA
L7         10807 S (OXIRANE OR (PROPENOIC(3A)ACID)) AND (DIFLUORO? OR TETRAFLUOR
L8          7364 S (OXIRANE OR (PROPENOIC(3A)ACID))(5A)(DIFLUORO? OR TETRAFLUORO
L9          6128 S (PROPENOIC(3A)ACID)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUO
L10         1298 S (OXIRANE)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUORO? OR OCT

     FILE 'CAPLUS' ENTERED AT 16:23:00 ON 30 AUG 2005
L11           16 S L4
L12          421 S L7 AND (PHOTORESIST? OR PHOTOPOLYMER?)
L13           20 S L7 AND (HOLOGRA?)

=> s l12 and (diacrylate or diepoxide or dioxirane or dimethacrylate)
         13086 DIACRYLATE
           705 DIACRYLATES
         13329 DIACRYLATE
                 (DIACRYLATE OR DIACRYLATES)
          2417 DIEPOXIDE
          1287 DIEPOXIDES
          3189 DIEPOXIDE
                 (DIEPOXIDE OR DIEPOXIDES)
           639 DIOXIRANE
           290 DIOXIRANES
           722 DIOXIRANE
                 (DIOXIRANE OR DIOXIRANES)
         19364 DIMETHACRYLATE
           739 DIMETHACRYLATES
         19547 DIMETHACRYLATE
                 (DIMETHACRYLATE OR DIMETHACRYLATES)
L14           44 L12 AND (DIACRYLATE OR DIEPOXIDE OR DIOXIRANE OR DIMETHACRYLATE)

=> d all 1-44

L14  ANSWER 1 OF 44  CAPLUS  COPYRIGHT 2005 ACS on STN
AN   2005:78075  CAPLUS
DN   142:173060
ED   Entered STN:  28 Jan 2005
TI   Method of screening cell-polymer interactions using polymer arrays formed
     on substrates, controlling cell behavior with copolymers, and supporting
     cell growth on polymer substrates
IN   Anderson, Daniel G.; Levenberg, Shulamit; Langer, Robert S.
PA   USA
SO   U.S. Pat. Appl. Publ., 37 pp., Cont.-in-part of U.S. Ser. No. 214,723.
     CODEN: USXXCO
DT   Patent
LA   English
IC   ICM  C12Q001-00
     ICS  C12M001-34
INCL 435004000; 435287200
CC   9-16 (Biochemical Methods)
     Section cross-reference(s): 38
FAN.CNT 3
     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
PI   US 2005019747         A1    20050127    US 2004-843707          20040512
     US 2004028804         A1    20040212    US 2002-214723          20020807
     WO 2005028619         A2    20050331    WO 2004-US30095         20040915
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
             LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
             NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
             SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
             SN, TD, TG
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PRAI US 2002-214723 A2 20020807
US 2003-503165P P 20030915
US 2004-570187P P 20040512
US 2004-843707 A 20040512

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2005019747	ICM	C12Q001-00
	ICS	C12M001-34
	INCL	435004000; 435287200
US 2005019747	NCL	435/004.000
US 2004028804	NCL	427/002.110
	ECLA	B01J019/00C

AB A method of screening cell-polymer interactions is given. The method includes depositing monomers as a plurality of discrete elements on a substrate, causing the deposited monomers to polymerize, thereby creating an array of discrete polymer elements on the substrate, incubating the substrate in a cell-contg. culture medium, and characterizing a predetd. cell behavior on each polymer element. Cell behavior is controlled by selecting a first monomer in combination with the polymer of which cells exhibit a particular cell behavior; selecting a second monomer, that, when copolymd. with the first monomer, modifies the cell behavior; co-polymg. the first and the second monomer to produce a copolymer; and seeding cells on the copolymer. A method of supporting growth of C2C12 cells in vitro is given as well. We deposited 576 different combinations of 25 different acrylate, ***diacrylate*** , ***dimethacrylate*** , and triacrylate monomers in triplicate onto a poly(hydroxyethyl methacrylate) (pHEMA) coated slide. After each round of deposition, the monomers were polymd. by brief exposure to long wave UV light. The synthesis of polymers in arrayed form onto a conventional 25.times.75 mm glass slide allows for easy, simultaneous staining and four-color fluorescence imaging of multiple slides, each contg. 1,728 individual polymer spots with twenty 1728 spot polymer arrays being synthesized in a single day. To identify materials that could enable new levels of control over hES cell behavior, we tested the polymer arrays for their affects on the attachment, proliferation, and gene expression of hES cells.

ST screening cell polymer interaction polymn array substrate; cell behavior control copolymer substrate; C2C12 cell growth polymer support

IT Keratins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(7, staining for tissue marker; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Animal cell line
(C2C12, supporting growth in vitro of; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Animal cell line
(H9; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Hydrogels
(as cytophobic film on substrate; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Polyoxyalkylenes, uses
RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(as cytophobic film on substrate; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Muscle
(cardiac, cells; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Blood serum
(cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Bone morphogenetic proteins
Growth factors, animal
Hemopoietins

Hepatocyte growth factor
Interferons
Interleukins
Platelet-derived growth factors
Tumor necrosis factors
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Gene
Gene, animal
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(cell expression of predetd.; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(cell prodn. of predetd.; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Actins
Desmins
Glial fibrillary acidic protein
Keratins
Vimentins
.alpha.-Fetoproteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation)
(cell prodn. of; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Connective tissue
(cell; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Blood vessel
Endothelium
Epithelium
Intestine
Kidney
Muscle
Neoplasm
Organ, animal
Pancreatic islet of Langerhans
(cells; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Polyolefins
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(chlorosulfonated; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Polymerization
(co-; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Films
(cytophobic, on substrate; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Monomers
RL: RCT (Reactant); RACT (Reactant or reagent)
(deposition on substrate; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Embryo, animal
(embryoid body; screening cell-polymer interactions using polymer

arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Stem cell
(embryonic or mesenchymal; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Glass, uses
RL: DEV (Device component use); USES (Uses)
(epoxy-coated slides of; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Ortho acids
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(esters, polymers; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Imaging
(fluorescent; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Epoxides
RL: DEV (Device component use); USES (Uses)
(glass slides coated with; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Peptides, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(growth factors, cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Growth factors, animal
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(heparin-binding, cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Liver
(hepatocyte; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Carboxylic acids, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(hydroxy, polymers; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Immunoassay
(immunohistochem.; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Muscle
(morphogenic factor, cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Heart
(myocardium, cells; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT UV radiation
(near-UV, robotics including lamp for; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Proteins
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified);

BIOL (Biological study); PREP (Preparation)
(nestins, cell prodn. of; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Acids, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(oxo, polymers; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Polymerization
(***photopolymn*** .; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Polyamides, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(poly(amino acids); screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Acetals
Vinyl compounds, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymers; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Adhesion, biological
Animal cell
Animal tissue culture
Bioassay
Cell
Cell differentiation
Cell proliferation
Chondrocyte
Culture media
Fibroblast
Human
Lymphocyte
Metabolism
Metabolism, animal
Microarray technology
Molecular association
Polymerization
Robotics
(screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Acrylic polymers, biological studies
Acrylic polymers, biological studies
Polyamides, biological studies
Polyanhydrides
Polyanilines
Polycarbonates, biological studies
Polyesters, biological studies
Polyethers, biological studies
Polyphosphazenes
Polyurethanes, biological studies
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Muscle
(smooth, cells; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Embryo, animal

Mesenchyme
(stem cells; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Transforming growth factors
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.alpha.-, cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT Transforming growth factors
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(.beta.-, cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT 25249-16-5
RL: DEV (Device component use); NUU (Other use, unclassified); USES (Uses)
(as cytophobic film on substrate; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT 302-79-4, Retinoic acid 9061-61-4, Nerve growth factor 11096-26-7, Erythropoietin 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor 62683-29-8, Colony-stimulating factor 67763-96-6, Insulin-like growth factor I 67763-97-7, Insulin-like growth factor II 104625-48-1, Activin A 127464-60-2, Vascular endothelial growth factor
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(cell culture medium including; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT 7440-37-1, Argon, uses
RL: NUU (Other use, unclassified); USES (Uses)
(monomer printing in atm. of humid; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT 68-12-2, Dimethylformamide, uses
RL: NUU (Other use, unclassified); USES (Uses)
(printing acrylate monomers in; screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting cell growth on polymer substrates)

IT 109-16-0DP, Triethylene glycol ***dimethacrylate*** , (meth)acrylate copolymer derivs. 109-17-1DP, Tetraethylene glycol ***dimethacrylate*** , (meth)acrylate copolymer derivs. 1680-21-3DP, Triethylene glycol ***diacrylate*** , (meth)acrylate copolymer derivs. 1830-78-0DP, (meth)acrylate copolymer derivs. 2082-81-7DP, 1,4-Butanediol ***dimethacrylate*** , (meth)acrylate copolymer derivs. 2223-82-7DP, Neopentyl glycol ***diacrylate*** , (meth)acrylate copolymer derivs. ***2264-01-9DP*** , (meth)acrylate copolymer derivs. 2358-84-1DP, Diethylene glycol ***dimethacrylate*** , (meth)acrylate copolymer derivs. 4074-88-8DP, Diethylene glycol ***diacrylate*** , (meth)acrylate copolymer derivs. 9003-53-6P 9004-35-7P 13048-33-4DP, 1,6-Hexanediol ***diacrylate*** , (meth)acrylate copolymer derivs. 17831-71-9DP, Tetraethylene glycol ***diacrylate*** , (meth)acrylate copolymer derivs. 24937-78-8P, Ethylenevinyl acetate polymer 30145-51-8DP, (meth)acrylate copolymer derivs. 35289-72-6DP, (meth)acrylate copolymer derivs. 62180-73-8DP, (meth)acrylate copolymer derivs. 68901-05-3DP, (meth)acrylate copolymer derivs. 79720-88-0DP, (meth)acrylate copolymer derivs. 85099-10-1DP, (meth)acrylate copolymer derivs. 85136-61-4DP, (meth)acrylate copolymer derivs. 87320-05-6DP, (meth)acrylate copolymer derivs. 91433-85-1DP, (meth)acrylate copolymer derivs. 120123-35-5DP, (meth)acrylate copolymer derivs. 226722-38-9DP, (meth)acrylate copolymer derivs. 302911-84-8DP, (meth)acrylate copolymer derivs. 746656-38-2DP, (meth)acrylate copolymer derivs.
RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(screening cell-polymer interactions using polymer arrays formed on substrates, controlling cell behavior with copolymers, and supporting

cell growth on polymer substrates)

L14 ANSWER 2 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:64926 CAPLUS
DN 143:45344
ED Entered STN: 25 Jan 2005
TI Microfluidic routing of aqueous and organic flows at high pressures: fabrication and characterization of integrated polymer microvalve elements
AU Kirby, Brian J.; Reichmuth, David S.; Renzi, Ronald F.; Shepodd, Timothy J.; Wiedenman, Boyd J.
CS Sandia National Laboratories, Livermore, CA, 94551, USA
SO Lab on a Chip (2005), 5(2), 184-190
CODEN: LCAHAM; ISSN: 1473-0197
PB Royal Society of Chemistry
DT Journal
LA English
CC 47-7 (Apparatus and Plant Equipment)
Section cross-reference(s): 38, 80
AB This paper presents the first systematic engineering study of the impact of chem. formulation and surface functionalization on the performance of free-standing microfluidic polymer elements used for high-pressure fluid control in glass microsystems. System design, chem. wet-etch processes, and laser-induced polymn. techniques are described, and parametric studies illustrate the effects of polymer formulation, glass surface modification, and geometric constraints on system performance parameters. In particular, this study shows that highly crosslinked and fluorinated polymers can overcome deficiencies in previously-reported microvalve architectures, particularly limited solvent compatibility. Substrate surface modification is shown effective in reducing the friction of the polymer-glass interface and thereby facilitating valve actuation. A microchip one-way valve constructed using this architecture shows a 2 .times. 108 ratio of forward and backward flow rates at 7 MPa. This valve architecture is integrated on chip with minimal dead vols. (70 pl), and should be applicable to systems (including chromatog. and chem. synthesis devices) requiring high pressures and solvents of varying polarity.
ST integrated polymer microvalve element fabrication characterization microfluidic routing; semiconductor device fabrication microfluidic routing
IT ***Photoresists***
(in-situ; microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT Capillary tubes
Etching
HPLC
Plasma
Positive ***photoresists***
Semiconductor devices
(microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT Flow
(microfluidics; microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT Valves
(microvalves; microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT Polyimides, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyether-, microchannels; microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT Polyethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyimide-, microchannels; microfluidic routing of aq. and org. flows

at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT 3524-68-3, Pentaerythritol triacrylate 4986-89-4, Pentaerythritol tetraacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinkers; microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT 7782-44-7, Oxygen, miscellaneous
RL: MSC (Miscellaneous)
(microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
IT 7631-86-9, Silica, uses 31694-16-3, PEEK 61128-24-3, Ultem 61128-46-9 446018-89-9, 1,3-Butanediol ***diacrylate*** -2,2,2-trifluoroethyl acrylate copolymer ***853329-50-7***
RL: TEM (Technical or engineered material use); USES (Uses)
(microfluidic routing of aq. and org. flows at high pressures: fabrication and characterization of integrated polymer microvalve elements)
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L14 ANSWER 3 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:80740 CAPLUS
DN 140:129143
ED Entered STN: 01 Feb 2004
TI Photocurable polymer compositions for porous moldings and porous cured polymer articles
IN Hegi, Yasuhiro
PA Omron Corporation, Japan
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
IC ICM C08F002-44
ICS C08F002-48; C08F020-06; G02F001-1334
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 38, 73
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004009650	A1	20040129	WO 2003-JP8966	20030715
	W: KR, US				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
	JP 2004051783	A2	20040219	JP 2002-211301	20020719
	EP 1533321	A1	20050525	EP 2003-741400	20030715
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
PRAI	JP 2002-211301	A	20020719		

WO 2003-JP8966 W 20030715

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2004009650	ICM	C08F002-44
	ICS	C08F002-48; C08F020-06; G02F001-1334
WO 2004009650	ECLA	C08F002/44; C08F002/48; G02F001/1334
JP 2004051783	FTERM	2H089/HA04; 2H089/HA08; 2H089/JA01; 2H089/JA04; 2H089/KA04; 2H089/QA16; 2H089/TA05; 4D006/GA03; 4D006/GA07; 4D006/GA13; 4D006/MA03; 4D006/MA12; 4D006/MB10; 4D006/MC22X; 4D006/MC28X; 4D006/MC35X; 4D006/MC65X; 4D006/NA03; 4D006/NA10; 4D006/NA32; 4D006/NA40; 4D006/NA42; 4D006/NA54; 4D006/NA64; 4D006/PC01; 4F071/AA33X; 4F071/AA76; 4F071/AH02; 4F071/AH12; 4F071/BA02; 4F071/BB12; 4F071/BC01; 4J011/AA05; 4J011/HA07; 4J011/HB17
EP 1533321	ECLA	C08F002/44; C08F002/48; G02F001/1334

AB The compn. comprises (A) a ***photopolymerizable*** monomer having surface tension .ltoreq.25 .times. 10-5 N/cm, (B) an org. compd. incompatible with the ***photopolymerizable*** monomer (A), (C) a common solvent compatible with the ***photopolymerizable*** monomer (A) and the org. compd. (B), and (D) a ***photopolymn*** . initiator. The porous cured resin article exhibits low surface tension and is useful as supports for display device and liq. cryst. recording material. Thus, perfluorooctylethyl acrylate 20, trimethylolpropane triacrylate 20, Light Acrylate PTMGA 250 (poly(tetramethylene glycol) ***diacrylate***) 20 and Darocur 1173 (photoinitiator) 0.5 parts was mixed with triethanolamine 80, and iso-Pr alc. 160 parts, coated on a glass plate, UV-cured to give a film, which was washed to remove triethanolamine and isopropanol and dried to form a film with porosity 77% and contact angle 137.5.degree..

ST fluoro polyoxyalkylene acrylic polymer photocurability porous film

IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, fluorine-contg.; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Fluoropolymers, preparation
Polysiloxanes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyoxyalkylene-; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polysiloxane-; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Porous materials
(films; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Acrylic polymers, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(fluorine-contg.; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Recording materials
(liq. cryst.; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Optical imaging devices
(photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Polymerization catalysts
(***photopolymn*** .; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT Films
(porous; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)

IT 649764-39-6P ***649764-40-9P*** 649764-41-0P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)
IT 102-71-6, Triethanolamine, uses 111-42-2, Diethanolamine, uses 141-43-5, Monoethanolamine, uses
RL: NUU (Other use, unclassified); USES (Uses)
(photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)
IT 7473-98-5, Darocur 1173
RL: CAT (Catalyst use); USES (Uses)
(***photopolymn*** . initiator; photocurable fluorine-contg. or silicon-contg. acrylic polymer compns. for porous moldings with low surface tension)
RE.CNT 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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L14 ANSWER 4 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:32659 CAPLUS
DN 140:95168
ED Entered STN: 15 Jan 2004
TI Heat-resistant resin precursor compositions, formation of cured films of them with excellent adhesion to metals, and semiconductor devices using them
IN Sasaki, Takahiro
PA Asahi Kasei Corporation, Japan
SO Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08L101-00
ICS C08F299-02; C08K005-5415; C08L079-04; G03F007-037; G03F007-038; G03F007-075; H01L021-312
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004010697	A2	20040115	JP 2002-164054	20020605
PRAI JP 2002-164054		20020605		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2004010697	ICM	C08L101-00
	ICS	C08F299-02; C08K005-5415; C08L079-04; G03F007-037; G03F007-038; G03F007-075; H01L021-312
JP 2004010697	FTERM	2H025/AA10; 2H025/AA14; 2H025/AB16; 2H025/AB17; 2H025/AD01; 2H025/AD03; 2H025/BC70; 2H025/BE01; 2H025/CA01; 2H025/CA27; 2H025/CB25; 2H025/CB26; 2H025/CC06; 2H025/FA03; 2H025/FA14; 2H025/FA29; 4J002/CC041; 4J002/CL001; 4J002/CM021; 4J002/CM041; 4J002/EE038; 4J002/EE048; 4J002/EH128; 4J002/ES018; 4J002/EV247; 4J002/EV318; 4J002/EX036; 4J002/FD090; 4J002/FD150; 4J002/FD158; 4J002/FD200; 4J002/FD207; 4J002/GJ01; 4J002/GP03; 4J002/GQ00; 4J002/GQ01; 4J002/HA05; 4J027/AC03; 4J027/AC04; 4J027/AC06; 4J027/AH03; 4J027/AJ02; 4J027/AJ08; 4J027/BA14; 4J027/BA17; 4J027/BA19; 4J027/BA23; 4J027/CA29;

4J027/CA34; 4J027/CB10; 4J027/CC04; 4J027/CC05;
4J027/CC06; 4J027/CC08; 4J027/CD10; 5F058/AA08;
5F058/AA10; 5F058/AC10; 5F058/AF04; 5F058/AG01;
5F058/AH02; 5F058/AH03

OS MARPAT 140:95168

GI

/ Structure 64 in file .gra /

AB The compns., useful for passivation films, buffer coatings, and interlayer dielecs., contain heat-resistant resin precursors and org. silane compds. I (X = trivalent org. group; Y = direct bond, divalent org. group; Z1, Z2 = C1-10 alkyl; a = 0-2) or (Z1O)3-a(Z2)aSiYC:OOC:OYSi(OZ3)3-b(Z4)b (X, Y, a = same as above; Z3, Z4 = same as Z1; b = 0-2). Thus, a photosensitive compn. contg. a polybenzoxazole precursor prepd. from 2,2-bis(3-amino-4-hydroxyphenyl)hexafluoropropane, 4,4'-diphenyl ether dicarboxylic acid dichloride, and 2-isocyanatoethyl methacrylate 100, tetraethylene glycol ***dimethacrylate*** 20, N,N'-di(2-methacryloxyethyl)urea 20, and 3-(triethoxysilyl)propylsuccinic anhydride 6 parts was applied to a Si wafer and heated at 350.degree. for 2 h to give a film with good adhesion.

ST heat resistance polybenzoxazole precursor interlayer dielec; semiconductor device acid anhydride silane ***photoresist*** ; polyamide acrylate ethoxysilylpropylsuccinic anhydride adhesion metal

IT Heat-resistant materials
(films; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Dielectric films
Semiconductor devices
(heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Films
(heat-resistant; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Polyethers, uses
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyamide-, fluorine-contg., acrylates, precursor; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyamide-polyether-, acrylates, precursor; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Polyethers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polybenzoxazole-, fluorine-contg.; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polybenzoxazole-polyether-; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Polyamides, uses
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(polyether-, fluorine-contg., acrylates, precursor; heat-resistant

polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT Polybenzoxazoles
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-, fluorine-contg.; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT ***389104-94-3P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer 2-isocyanatoethyl methacrylate ester-N,N'-di(2-methacryloxyethyl)urea-tetraethylene glycol ***dimethacrylate*** copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT 93642-68-3, 3-(Triethoxysilyl)propylsuccinic anhydride 384332-19-8
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT 389104-90-9P 389104-91-0P
RL: IMF (Industrial manufacture); RCT (Reactant); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(precursor; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

IT 340294-23-7P
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermally cured; heat-resistant polybenzoxazole precursor compns. contg. org. silane compds. having acid anhydride groups for films with good adhesion to metals for semiconductor devices)

L14 ANSWER 5 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:893334 CAPLUS
DN 141:123987
ED Entered STN: 16 Nov 2003
TI ***Photopolymerization*** of fluorinated and aliphatic acrylates in polymer stabilized liquid crystalline systems: effect of liquid crystalline order on polymer molecular weight
AU McCormick, Demetrius T.; Guymon, C. Allan
CS Univ. of Southern Mississippi, USA
SO Technical Conference Proceedings - RadTech 2002: The Premier UV/EB Conference & Exhibition, Indianapolis, IN, United States, Apr. 28-May 1, 2002 (2002), 349-355 Publisher: RadTech International North America, Chevy Chase, Md.
CODEN: 69ETHJ
DT Conference
LA English
CC 35-4 (Chemistry of Synthetic High Polymers)
AB Polymer stabilized liq. cryst. systems (PSLCs) have generated an intense amt. of research interest over the past decade, due to their potential for use in various display applications. This work focuses on the ***photopolymn*** . of fluorinated and aliph. monomers within a liq. cryst. solvent and how factors such as solvent order, monomer chem. structure, and resultant polymer structure affect the polymn. mechanism in PSLC systems. The polymn. rates were examd. for fluorinated and aliph. monoacrylate and ***diacrylate*** monomers in addn., mol. wts. were examd. for a linear aliph. polymer after polymn. in various liq. cryst. phases to det. the effect of LC order on the polymn. mechanism.
ST liq cryst solvent order ***photopolymn*** rate acrylate; fluorinated acrylate ***photopolymn*** rate liq cryst solvent
IT Liquid crystals
(cyanooctylbiphenyl; effect of liq. cryst. order on polymn. rate and polymer mol. wt. in ***photopolymn*** . of fluorinated and aliph. acrylates in liq. cryst. solvent)
IT Fluoropolymers, preparation

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(effect of liq. cryst. order on polymn. rate and polymer mol. wt. in ***photopolymn*** . of fluorinated and aliph. acrylates in liq. cryst. solvent)

IT Polymerization
Polymerization catalysts
(***photopolymn*** .; effect of liq. cryst. order on polymn. rate and polymer mol. wt. in ***photopolymn*** . of fluorinated and aliph. acrylates in liq. cryst. solvent)

IT 71868-10-5, Irgacure I907
RL: CAT (Catalyst use); USES (Uses)
(effect of liq. cryst. order on polymn. rate and polymer mol. wt. in ***photopolymn*** . of fluorinated and aliph. acrylates in liq. cryst. solvent)

IT 29500-86-5P, Decyl acrylate homopolymer 57592-67-3P, Hexanediol ***diacrylate*** homopolymer 74049-08-4P, 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-Heptadecafluorodecyl acrylate homopolymer ***153893-38-0P*** , Octafluorohexanediol ***diacrylate*** homopolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(effect of liq. cryst. order on polymn. rate and polymer mol. wt. in ***photopolymn*** . of fluorinated and aliph. acrylates in liq. cryst. solvent)

IT 52709-84-9, 4-Cyano-4'-n-octylbiphenyl
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; effect of liq. cryst. order on polymn. rate and polymer mol. wt. in ***photopolymn*** . of fluorinated and aliph. acrylates in liq. cryst. solvent)

RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Dierking, I; Liq Cryst 1998, V24, P387 CAPLUS
(2) Guymon, C; Liq Cryst 1995, V19, P719 CAPLUS
(3) Guymon, C; Macromolecules 1997, V30, P1594 CAPLUS
(4) Guymon, C; Macromolecules 1997, V30, P5271 CAPLUS
(5) Guymon, C; Science 1997, V275, P57 CAPLUS
(6) Hikmet, R; Liq Cryst 1991, V9, P405 CAPLUS
(7) Hoyle, C; Macromolecules 1993, V26, P844 CAPLUS
(8) Hoyle, C; Macromolecules 1996, V29, P3182 CAPLUS
(9) Hoyle, C; Polymer 1993, V34, P3070 CAPLUS
(10) McCormick, D; Liq Cryst (Submitted)
(11) McCormick, D; Macromolecules 2001, V34, P6929 CAPLUS
(12) Rajaram, C; Chem Mater 1995, V7, P2300 CAPLUS

L14 ANSWER 6 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:794054 CAPLUS
DN 139:293120
ED Entered STN: 10 Oct 2003
TI Heat-resistant photoimaging polymer compositions for insulators and manufacture of semiconductor devices using them
IN Kimura, Masashi; Kanaya, Ryuichiro; Maruyama, Kimiyuki
PA Asahi Kasei Corporation, Japan
SO Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-038
ICS C08F290-14; G03F007-004
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74, 76

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003287889	A2	20031010	JP 2002-202732	20020711
WO 2004008252	A1	20040122	WO 2003-JP8792	20030710

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,

FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

TW 224716	B1	20041201	TW 2003-92118892	20030710
EP 1536286	A1	20050601	EP 2003-741329	20030710

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRAI JP 2002-17610	A	20020125	
JP 2002-202732	A	20020711	
WO 2003-JP8792	W	20030710	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003287889	ICM	G03F007-038
	ICS	C08F290-14; G03F007-004
WO 2004008252	ECLA	G03F007/038P
EP 1536286	ECLA	G03F007/038P

AB The compns. comprise (A) polyamides having ***photopolymerizable*** unsatd. bonds 100, (B) monomers having ***photopolymerizable*** double bonds 1-50, (C) ***photopolymn*** . initiators 1-20, and (D) thermal crosslinkers 5-30 parts. Thus, 2,2-bis(3-amino-4-hydroxyphenyl)hexafluoropropane-diphenyl ether-4,4'-dicarbonyl dichloride copolymer was reacted with 2-isocyanatoethyl methacrylate, mixed with melamine resin (Nikalac MW 30HM), tetraethylene glycol ***dimethacrylate*** , and N,N'-bis(2-methacryloyloxyethyl)urea, applied on a Si wafer, imagewise irradiated, and heat-cured to give a polybenzoxazole film showing high resoln. and good chem. resistance.

ST photoimaging compn acrylic polyimide elec insulator; acrylic polybenzoxazole neg photoimaging semiconductor device

IT Aminoplasts
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Nikalac MX 280, Nikalac MX 270, crosslinker; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polyethers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminoplast-polybenzoxazole-, fluorine-contg., acrylic; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminoplast-polybenzoxazole-polyether-, acrylic; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polyimides, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminoplast-polyether-, acrylic; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polybenzoxazoles
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminoplast-polyether-, fluorine-contg., acrylic; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polyethers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(aminoplast-polyimide-, acrylic; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Aminoplasts
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(crosslinker; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Electric insulators
Photoimaging materials
Photolithography

Semiconductor device fabrication
(heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polyethers, uses
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(polyamic acid-; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polyethers, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(polyamide-, fluorine-contg.; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(polyamide-polyether-; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Aminoplasts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polybenzoxazole-polyether-, fluorine-contg., acrylic; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polyamides, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(polyether-, fluorine-contg.; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Polyamic acids
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(polyether-; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT Aminoplasts
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-polyimide-, acrylic; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT 9011-05-6, Urea resin
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(Nikalac MX 280, Nikalac MX 270, crosslinker; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT ***609307-54-2P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-diphenyl ether-4,4'-dicarbonyl dichloride copolymer carbamate with 2-isocyanatoethyl methacrylate, polymer with N,N'-bis(2-methacryloyloxyethyl)urea, tetraethylene glycol ***dimethacrylate*** , and urea resin
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(comprised of actual and assumed monomers; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT 9003-08-1, Nikalac MW 30HM 15968-37-3, Cymel 1170 66810-89-7, Cymel 1123
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(crosslinker; heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT 194540-58-4P 286401-59-0P 389104-91-0P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-diphenyl ether-4,4'-dicarbonyl dichloride copolymer carbamate with 2-isocyanatoethyl methacrylate
RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM

(Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT 109-17-1, Tetraethylene glycol ***dimethacrylate*** 86219-64-9
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT 112480-82-7P 133440-72-9P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-diphenyl ether-4,4'-dicarbonyl dichloride copolymer
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

IT ***609307-53-1P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-diphenyl ether-4,4'-dicarbonyl dichloride copolymer carbamate with 2-isocyanatoethyl methacrylate, polymer with N,N'-bis(2-methacryloyloxyethyl)urea, Nikalac MW 30HM, and tetraethylene glycol ***dimethacrylate*** ***609307-55-3P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-diphenyl ether-4,4'-dicarbonyl dichloride copolymer carbamate with 2-isocyanatoethyl methacrylate, polymer with N,N'-bis(2-methacryloyloxyethyl)urea, Cymel 1170, and tetraethylene glycol ***dimethacrylate*** ***609307-56-4P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-diphenyl ether-4,4'-dicarbonyl dichloride copolymer carbamate with 2-isocyanatoethyl methacrylate, polymer with N,N'-bis(2-methacryloyloxyethyl)urea, Cymel 1123, and tetraethylene glycol ***dimethacrylate*** 609342-98-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(heat- and chem.-resistant photoimaging polyimides or polybenzoxazoles for semiconductor device insulators)

L14 ANSWER 7 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:666508 CAPLUS
DN 140:60274
ED Entered STN: 27 Aug 2003
TI Polymer nanostructure evolution in smectic liquid crystals
AU McCormick, Demetrius T.; Guymon, C. Allan
CS Polymer Science, University of Southern Mississippi, Hattiesburg, MS, USA
SO PMSE Preprints (2003), 89, 41-42
CODEN: PPMRA9; ISSN: 1550-6703
PB American Chemical Society
DT Journal; (computer optical disk)
LA English
CC 36-6 (Physical Properties of Synthetic High Polymers)
Section cross-reference(s): 35, 75
AB The ***photopolymn*** . of fluorinated and aliph. monoacrylate and ***diacrylate*** in a smectic thermotropic liq. crystal (LC) solvent was studied. As solvent order increases, substantial acceleration of the polymn. rates was obsd. esp. for the fluorinated monoacrylate heptadecafluorodecyl acrylate (15-fold). The LC also has a significant impact on mol. wt. of other linear polymers with Mw and Mn increasing when polymd. in the more ordered smectic phase compared to the less ordered nematic and isotropic phases.
ST fluorinated aliph acrylate ***photopolymn*** kinetics nanostructure smectic liq crystal
IT Acrylic polymers, properties
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(fluorine-contg.; polymer nanostructure evolution in smectic liq. crystals)
IT Liquid crystals, polymeric
(nematic; polymer nanostructure evolution in smectic liq. crystals)
IT Polymer morphology
(phase; polymer nanostructure evolution in smectic liq. crystals)
IT Polymerization kinetics
(***photopolymn*** .; polymn. rate of fluorinated and aliph. mono acrylates and ***diacrylate*** in smectic liq. crystals)
IT Nanostructures
(polymer nanostructure evolution in smectic liq. crystals)

IT Liquid crystals, polymeric
(smectic A; polymer nanostructure evolution in smectic liq. crystals)
IT 29500-86-5P, Decyl acrylate homopolymer 57592-67-3P, Hexanediol ***diacrylate*** homopolymer 119433-78-2P, Heptadecafluorodecyl acrylate homopolymer ***153893-38-0P*** , Octafluorohexanediol ***diacrylate*** homopolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polymer nanostructure evolution in smectic liq. crystals)
IT 71868-10-5, Irgacure I-907
RL: CAT (Catalyst use); USES (Uses)
(polymn. initiator, photo; polymer nanostructure evolution in smectic liq. crystals)
IT 2156-96-9, Decyl acrylate ***2264-01-9*** , 2-Propenoic acid, 2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediyl ester 13048-33-4 119279-35-5, 2-Propenoic acid, heptadecafluorodecyl ester
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polymn. rate of fluorinated and aliph. mono acrylates and ***diacrylate*** in smectic liq. crystals)
IT 52709-84-9, 8CB
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(smectic liq. crystal solvent; polymer nanostructure evolution in smectic liq. crystals)
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Dierking, I; Liq Cryst 1998, V24, P387 CAPLUS
(2) Guymon, C; Liq Cryst 1995, V19, P719 CAPLUS
(3) Guymon, C; Macromolecules 1997, V30, P1594 CAPLUS
(4) Guymon, C; Macromolecules 1997, V30, P5271 CAPLUS
(5) Guymon, C; Science 1997, V275, P57 CAPLUS
(6) Hikmet, R; Liq Cryst 1991, V9, P405 CAPLUS
(7) Hoyle, C; Macromolecules 1993, V26, P844 CAPLUS
(8) Hoyle, C; Macromolecules 1996, V29, P3182 CAPLUS
(9) Hoyle, C; Polymer 1993, V34, P3070 CAPLUS
(10) McCormick, D; Liq Cryst 2003, V30, P49 CAPLUS
(11) McCormick, D; Macromolecules 2001, V34, P6929 CAPLUS
(12) McCormick, D; Polymer 2003, V44, P2751 CAPLUS
(13) Rajaram, C; Chem Mater 1995, V7, P2300 CAPLUS

L14 ANSWER 8 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:58795 CAPLUS
DN 138:124798
ED Entered STN: 24 Jan 2003
TI Photoinitiated UV-curable lubricant coatings prepared from aliphatic urethane acrylate oligomers and PTFE support
IN Krohn, Roy C.
PA USA
SO U.S. Pat. Appl. Publ., 8 pp., Cont.-in-part of WO 2001 40,385.
CODEN: USXXCO
DT Patent
LA English
IC ICM C10M017-28
INCL 508181000; 508246000; 508421000; 508469000; 508470000; 508471000; 508578000
CC 51-8 (Fossil Fuels, Derivatives, and Related Products)
Section cross-reference(s): 38, 42
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003017954	A1	20030123	US 2002-164338	20020605
	WO 2001040385	A2	20010607	WO 2000-US42603	20001206
	WO 2001040385	A3	20020110		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-169248P P 19991206

WO 2000-US42603 A2 20001206

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2003017954	ICM	C10M017-28
	INCL	508181000; 508246000; 508421000; 508469000; 508470000; 508471000; 508578000
US 2003017954	NCL	508/181.000
	ECLA	C09D004/06+C08F290/14; C09D004/06+C08F290/06
WO 2001040385	ECLA	C09D004/00+C08F220/18; C09D004/06+C08F290/14

AB UV-curable lubricant coatings for substrates are prepd. from 10-45 wt.% of at least one aliph. acrylate oligomer on 15-40 wt.% of a PTFE-based support and a photoinitiator, in which the PTFE-based support is prepd. with av. particle size 0.3-30 .micron.m and such that the lubricant layer, after polymn. and crosslinking, does not contain any significant amt. of incorporated volatile org. solvents in the coating. The lubricant coating precursor is then applied to the substrate (e.g., by brushing) and then crosslinked. The aliph. acrylate oligomer is selected from aliph. urethane ***diacrylates*** and triacrylates blended or dild. with 1,6-hexanediol ***diacrylate*** , tripropylene glycol ***diacrylate*** , ethoxylated trimethylolpropane triacrylate, and 2-(2-ethoxyethoxy)ethyl acrylate, in addn. to an ethylenically unsatd. acrylate monomer (e.g., isobornyl acrylate and isobornyl methacrylate).

ST UV curable lubricant coating; urethane epoxy acrylate UV curable lubricant coating; photoinitiatior UV curable lubricant coating

IT Epoxy resins, preparation
Polyurethanes, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(acrylic, prepn. and ***photopolymn*** . of; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT Polyurethanes, uses
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-epoxy, lubricant coatings; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT Epoxy resins, uses
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyurethane-, lubricant coatings; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT Sulfonium compounds
RL: CAT (Catalyst use); USES (Uses)
(arene, hexafluoroantimonates and hexafluorophosphates, photoinitiators; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT Crosslinking catalysts
(photochem.; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT Lubricants
(photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT Aromatic compounds
RL: CAT (Catalyst use); USES (Uses)
(sulfonium, hexafluoroantimonates and hexafluorophosphates, photoinitiators; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT 71868-10-5, Irgacure 907
RL: CAT (Catalyst use); USES (Uses)
(Irgacure 907, photoinitiator; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT ***489466-09-3P***
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coatings; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT 26376-86-3, Modaflow
RL: TEM (Technical or engineered material use); USES (Uses)

(flow improver; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT 119-61-9, Benzophenone, uses 947-19-3, 1-Hydroxycyclohexyl phenyl ketone 7473-98-5, 2-Hydroxy-2-methyl-1-phenylpropan-1-one 24650-42-8, 2,2-Dimethoxy-1,2-diphenylethan-1-one 75980-60-8, 2,4,6-Trimethylbenzoyldiphenylphosphine oxide 145052-34-2, Phosphine oxide, bis(2,6-dimethoxybenzoyl)(2,4,4-trimethylpentyl)-
RL: CAT (Catalyst use); USES (Uses)
(photoinitiator; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

IT 174285-64-4, Irgacure 1700
RL: CAT (Catalyst use); USES (Uses)
(photoinitiators; photoinitiated UV-curable lubricant coatings prepd. from aliph. urethane acrylate oligomers and PTFE support)

L14 ANSWER 9 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:894265 CAPLUS
DN 138:346386
ED Entered STN: 26 Nov 2002
TI Development of high-performance normal mode type (polymer/liquid crystal) composite films using UV curable monomers
AU Hasuo, Haruumi; Yamaguchi, Masahiro; Gunjima, Tomoki; Rajesh, Kumar; Yang, Huai; Kimura, Reiko; Amaya, Naoyuki; Kaiya, Norihiro; Kikuchi, Hirotsugu; Kajiyama, Tisato
CS Chem. Textile Res. Inst., Fukuoka Ind. Technol. Cent., Chikushino, 818-8540, Japan
SO Kenkyu Hokoku - Fukuoka-ken Kogyo Gijutsu Senta (2002), Volume Date 2001, 12, 14-17
CODEN: KFKSEH; ISSN: 0916-8230
PB Fukuoka-ken Kogyo Gijutsu Senta
DT Journal
LA Japanese
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37, 38, 75, 76
AB The driving voltage, steepness (.gamma.) and contrast of the titled film are very important elec. optical properties, which depend on the properties of both the liq. crystal and the UV curable monomer used. And to obtain large liq. crystal composite film using rolls, the temp. of polymn. is required to be ca. 40.degree.. By mixing TL213 as liq. crystal, 3,3,5-trimethylhexylacrylate (TMHA) as a monomer and 1,6-hexanedioldivinylether (HDDVE) as a crosslinking reagent; TL213/TMHA/HDDVE = 80/14/6, and polymg. under 40.degree.-50 s/25 mWcm-2, an excellent film can be obtained: driving voltage 7 V, steepness .gamma. = 1.31, the temp. of transparency Tc = 10.degree..
ST polymer liq crystal composite film ***photopolymerizable*** monomer; electrooptical property polymer liq crystal composite film
IT Electrooptical effect
Liquid crystals, polymeric
UV radiation
(development of high-performance normal mode-type polymer/liq. crystal composite films using UV curable monomers)

IT 103-11-7DP, 2-Ethylhexyl acrylate, polymer with liq. crystal mixt. 999-61-1DP, 2-Hydroxypropyl acrylate, polymer with liq. crystal mixt. 1070-70-8DP, 1,4-Butanedioldiacrylate, polymer with liq. crystal mixt. 4813-57-4DP, Stearyl acrylate, polymer with liq. crystal mixt. 9004-74-4DP, Methoxy polyethylene glycol, polymer with liq. crystal mixt. 13048-33-4DP, 1,6-Hexanediol ***diacrylate*** , polymer with liq. crystal mixt. 26570-48-9DP, Polyethylene glycol ***diacrylate*** , polymer with liq. crystal mixt. 29590-42-9DP, Isooctyl acrylate, polymer with liq. crystal mixt. 45125-03-9DP, 3,5,5-Trimethylhexyl acrylate, polymer with liq. crystal mixt. 50974-47-5DP, polymer with liq. crystal mixt. 56641-05-5DP, Phenoxypolyethylene glycol acrylate, polymer with liq. crystal mixt. 164716-12-5DP, Licrilite TL 205, polymer with 1,4-butanediol ***diacrylate*** and lauryl acrylate ***336128-50-8DP*** , 3,5-Difluorobenzyl acrylate, polymer with liq. crystal mixt.
RL: PNU (Preparation, unclassified); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(development of high-performance normal mode-type polymer/liq. crystal composite films using UV curable monomers)

L14 ANSWER 10 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:696485 CAPLUS
DN 137:233639
ED Entered STN: 13 Sep 2002
TI Fabrication of pellicles containing adhesive for application on lithographic masks and reticles
IN Kurata, Hiroyuki; Matsuoka, Hideto
PA Japan
SO U.S. Pat. Appl. Publ., 10 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM B44C005-08
ICS B44F001-06; C09J001-00
INCL 428038000
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002127360	A1	20020912	US 2001-26805	20011227
PRAI JP 2000-399185	A	20001227		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2002127360	ICM	B44C005-08
	ICS	B44F001-06; C09J001-00
	INCL	428038000
US 2002127360	NCL	428/038.000
	ECLA	C09J004/00+C08F220/22; C09J004/06+C08F259/08

AB Pellicle films are bonded to lithog. masks by in-situ photocuring of compns. contg. ***photopolymerizable*** , F-contg. unsatd. monomers and fluoropolymers. The pellicle film is preferably made of a fluoropolymer Cytop, and the preferred adhesive contained tetrafluoroethylene-propylene vinylidene fluoride copolymer 17, BuOAc 74.2, 2-(perfluorooctyl)ethyl acrylate 8.5, and Darocur 1173 0.3%.
ST pellicle fluoropolymer bonding lithog mask photocurable fluoropolymer adhesive; fluorodecyl acrylate photocurable adhesive fluoropolymer pellicle bonding lithog mask; fluoroethylene propylene vinylidene fluoride copolymer photocurable adhesive pellicle bonding
IT Photomasks (lithographic masks)
(fabrication of pellicles contg. photocurable fluoropolymer adhesives and fluoropolymer films for application on lithog. photomasks and reticles)
IT Fluoropolymers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(fabrication of pellicles contg. photocurable fluoropolymer adhesives and fluoropolymer films for application on lithog. photomasks and reticles)
IT Adhesives
(photocurable; fabrication of pellicles contg. photocurable fluoropolymer adhesives and fluoropolymer films for application on lithog. photomasks and reticles)
IT ***459410-56-1P*** , 2-(Perfluorooctyl)ethyl acrylate-propylene-tetrafluoroethylene-vinylidene fluoride copolymer ***459410-57-2P*** , 1H, 1H, 5H-Octafluoropentyl acrylate-propylene-tetrafluoroethylene-vinylidene fluoride copolymer ***459410-59-4P*** , 2,2,3,3,4,4,5,5-Octafluorohexane 1,6- ***diacrylate*** -propylene-tetrafluoroethylene-vinylidene fluoride copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cured adhesive; fabrication of pellicles contg. photocurable fluoropolymer adhesives and fluoropolymer films for application on lithog. photomasks and reticles)

L14 ANSWER 11 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:593299 CAPLUS
DN 137:311647
ED Entered STN: 09 Aug 2002
TI Photochromic polymer films prepared by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivatives
AU Kim, Eunkyoung; Cho, Song Yun

CS Advanced Materials Division Lab 7, Korea Research Institute of Chemical Technology, Taejeon, S. Korea
SO Molecular Crystals and Liquid Crystals Science and Technology, Section A: Molecular Crystals and Liquid Crystals (2002), 377, 385-390
CODEN: MCLCE9; ISSN: 1058-725X
PB Taylor & Francis Ltd.
DT Journal
LA English
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 73, 74
AB Prepn. of photochromic polymer films by photocuring methods was investigated using a soln. of 2,2,3,3-tetrafluoro-1,4-butylene ***diacrylate*** (TFBDA) and diarylethenes (DA) in the presence of a photo initiator. The ***photopolymn*** . rate of DA mixt. was highly dependent on the diarylethene structure. The rate was much faster in the mixt. contg. radical curable DA monomers than those without reactive group. Quantum yield for the photochromic cyclization was higher in the polymer film in which DA were chem. bound to the polymer network, than in the DA doped polymer films. Rewritable recording was attempted by using two light sources of UV and visible light.
ST fluoroalkylene ***diacrylate*** diarylethene photochromic ***photopolymn*** ; photocyclization fluoroalkylene ***diacrylate*** diarylethene erasable recording
IT Crosslinking
(photochem.; photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT Crosslinking kinetics
(photochem.; photocuring rate of fluoroalkylene ***diacrylate*** in presence of diarylethene derivs.)
IT Photochromic materials
(photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT Fluoropolymers, preparation
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT Cyclization
(photocyclization; photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT Recording materials
(rewritable; photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT 159617-30-8 242809-06-9
RL: MOA (Modifier or additive use); USES (Uses)
(photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT ***459433-00-2P***
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT 459432-99-6P ***471924-16-0P***
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photochromic polymer films prepd. by photocuring of fluoroalkylene ***diacrylate*** and diarylethene derivs.)
IT ***125658-77-7*** 242809-08-1
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(photocuring rate of fluoroalkylene ***diacrylate*** in presence of diarylethene derivs.)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Hanazawa, M; J Chem Soc, Chem Commun 1992, P206 CAPLUS
(2) Irie, M; J Am Chem Soc 1994, V116, P9894 CAPLUS
(3) Irie, M; J Org Chem 1995, V60, P8305 CAPLUS
(4) Jager, W; Macromolecules 2000, V33, P8576 CAPLUS
(5) Kim, E; Macromolecules 1999, V32, P4855 CAPLUS
(6) Kwon, D; Chem Phys Lett 2000, V328, P234 CAPLUS

(7) Mejiritski, A; Photochem PhotoBiol A : Chem 1997, V108, P289 CAPLUS
(8) Nakayama, N; J Org Chem 1990, V55, P2592
(9) Yu, M; Submitted for publication

L14 ANSWER 12 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:471544 CAPLUS
DN 137:239560
ED Entered STN: 24 Jun 2002
TI Preparation of diarylethene substituted polymer films for optical recording
AU Cho, Song Yun; Kim, Eunkyoung
CS Advanced Materials Division, Korea Research Institute of Chemical Technology, Taejon, S. Korea
SO Materials Research Society Symposium Proceedings (2002), 665(Electronic, Optical and Optoelectronic Polymers and Oligomers), 339-345
CODEN: MRSPDH; ISSN: 0272-9172
PB Materials Research Society
DT Journal
LA English
CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
AB Effect of photoirradn. on the color change of diarylethene polymer films was investigated. Diarylethene polymer films were prepd. by ***photopolymn*** . of a mixt. of diarylethene compd. and fluoroalkyl acrylate in presence of a photoinitiator. The diarylethene compd. 1-[6'-(methacryloxyethyloxycarbonyl)-2'-methylbenzo[b]thiophene -3'-yl]-2-(2''-methylbenzo[b]thiophene-3''-yl) hexafluorocyclopentene (MMBTF6) was synthesized from 2,3-bis(2-methylbenzo[b]thiophene-3-yl)hexafluorocyclopentene (BTF6) in three steps. The fluoroalkylacrylate compd. 2,2,3,3-tetrafluoro-1,4-Bu ***diacrylate*** (TFBDA) was synthesized from the corresponding diol and acryloyl chloride in the presence of a base. The photocurable mixt. contg. MMBTF6 and TFBDA was coated on a substrate and subjected to actinic irradn., to afforded homogeneous transparent film. A mask image was recovered on the film by a light of 365 nm and read by a visible light (.lambda. > 700 nm) without destruction of the image. To erase the recorded image, a white light or a visible light was irradiated. Photochromic quantum yield and photoinduced refractive index change of the diarylethene bound polymer film were detd. as 0.12 and 0.0006 resp.
ST photochromism diarylethene substituted polymer film optical recording
IT UV and visible spectra
(absorption; photochromism of diarylethene-fluoroalkyl acrylate copolymer and diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT Optical recording materials
(erasable; photochromism of diarylethene-fluoroalkyl acrylate copolymer and diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT Absorption spectra
Photochromic materials
Photochromism
Refractive index
Thermal stability
(photochromism of diarylethene-fluoroalkyl acrylate copolymer and diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT Fluoropolymers, reactions
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(photochromism of diarylethene-fluoroalkyl acrylate copolymer and diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT Cyclization
(photocyclization; photochromism of diarylethene-fluoroalkyl acrylate copolymer and diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT Polymerization kinetics
(***photopolymn*** .; ***photopolymn*** . of fluoroalkyl acrylate with and without photochromic diarylethene compds.)
IT 159617-30-8 242809-06-9
RL: CPS (Chemical process); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)

(comparison compd.; photochromism of diarylethene-fluoroalkyl acrylate copolymer and diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT ***459433-00-2*** , 2,2,3,3-Tetrafluoro-1,4-butyl ***diacrylate*** homopolymer
RL: PRP (Properties)
(matrix; photochromism of diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT 242809-08-1
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(photochromism of diarylethene-fluoroalkyl acrylate copolymer and diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT 459432-99-6
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(photochromism of diarylethene-substituted acrylate polymer)
IT 459432-96-3
RL: CPS (Chemical process); FMU (Formation, unclassified); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process); USES (Uses)
(photochromism of diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT 459432-98-5
RL: CPS (Chemical process); FMU (Formation, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); FORM (Formation, nonpreparative); PROC (Process)
(photochromism of diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT 459432-97-4
RL: CPS (Chemical process); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(photochromism of diarylethenes doped in fluoroalkyl acrylate polymer matrix)
IT ***125658-77-7***
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(***photopolymn*** . of fluoroalkyl acrylate with and without photochromic diarylethene compds.)
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Hanazawa, M; J Chem Soc, Chem Commun 1992, P206 CAPLUS
(2) Irie, M; J Am Chem Soc 1994, V116, P9894 CAPLUS
(3) Irie, M; J Org Chem 1995, V60, P8305 CAPLUS
(4) Jager, W; Macromolecules 2000, V33, P8576 CAPLUS
(5) Kim, E; Macromolecules 1999, V32, P4855 CAPLUS
(6) Mejiritski, A; J Photochem Photobiol 1997, V108, P289 CAPLUS
(7) Nakayama, N; J Org Chem 1990, V55, P2592
(8) Tien, P; Appl Opt 1971, V10, P2395 CAPLUS
(9) Wilson, A; J Phys Technol 1984, V15, P232 CAPLUS
(10) Yoshida, T; J Photochem & Photobiology A: Chemistry 1996, V95, P265 CAPLUS

L14 ANSWER 13 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:35841 CAPLUS
DN 136:103176
ED Entered STN: 15 Jan 2002
TI Photo-sensitive polybenzoxazole precursor resins and alkali-developable compositions useful for lithographic patterning containing them
IN Kaneda, Takayuki; Kimura, Masashi; Kanaya, Ryuichiro
PA Asahi Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08G073-22
ICS C08K005-00; C08L079-06; G03F007-038; G03F007-40; H01L021-027
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 74, 76
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002012665	A2	20020115	JP 2000-335097	20001101
PRAI	JP 2000-130480	A	20000428		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002012665	ICM	C08G073-22
	ICS	C08K005-00; C08L079-06; G03F007-038; G03F007-40; H01L021-027

AB The resins are obtained from the reaction products of a polyamide bearing OH groups partially with OCN(CH2)mOCOC(R1):CR2R3 (R1-3 = H, C1-3 aliph. groups; m = 2-10), and used in compns. contg. photoinitiators, crosslinkers and diluents for neg.-working ***photoresists*** in patterning of semiconductor devices. Thus, condensing 2,2-bis(3-amino-4-hydroxyphenyl)hexafluoropropane with 4,4'-diphenyl ether dicarboxylic acid dichloride, end-blocking the resulting polyamide with phthalic anhydride, purifying, and reacting the blocked product with 2-isocyanatoethyl methacrylate (at an amt. equiv. to 40 mol% of OH groups on the product) gave a polybenzoxazole precursor 100 parts of which was combined with tetraethylene glycol ***dimethacrylate*** 40, 1-phenyl-propanedione-2-(o-benzoyl) oxime 6, Michler's ketone 2, 3-aminopropyltrimethoxysilane 6, N-nitrosodiphenylamine 0.1 and N-methyl-2-pyrrolidone 230 parts to give a neg.-working ***photoresist*** with good light curability and developing property by alkali.

ST neg working ***photoresist*** hydroxy polyamide isocyanatoethyl methacrylate modified resin; semiconductor device lithog patterning acrylic hydroxy polyamide polybenzoxazole precursor

IT Polyethers, preparation
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyamide-, fluorine-contg.; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyamide-polyether-; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT Polyethers, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polybenzoxazole-, fluorine-contg.; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT Fluoropolymers, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polybenzoxazole-polyether-; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT Polybenzoxazoles
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyether-, fluorine-contg.; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT Polyamides, preparation
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic-polyether-, fluorine-contg.; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT Dielectric films
Photoresists
Semiconductor device fabrication
(photo-sensitive polybenzoxazole precursor resins and

alkali-developable compns. useful for lithog. patterning contg. them)

IT Acrylic polymers, preparation
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polybenzoxazole-polyether-, fluorine-contg.; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT ***389104-92-1DP*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer 2-isocyanatoethyl methacrylate ester-tetraethylene glycol ***dimethacrylate*** copolymer, reaction products with termination acids ***389104-92-1P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer 2-isocyanatoethyl methacrylate ester-tetraethylene glycol ***dimethacrylate*** copolymer ***389104-93-2DP*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer 2-isocyanatoethyl methacrylate ester-N,N'-di(2-methacryloxyethyl)urea copolymer, reaction products with termination acids ***389104-94-3P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer 2-isocyanatoethyl methacrylate ester-N,N'-di(2-methacryloxyethyl)urea-tetraethylene glycol ***dimethacrylate*** copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT 389104-83-0P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, phthalic anhydride-terminated, ester with 2-isocyanatoethyl methacrylate 389104-84-1P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, terminated with methanesulfonyl chloride, carbamate ester with 2-isocyanatoethyl methacrylate 389104-85-2P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, terminated with p-toluenesulfonyl chloride, carbamate ester with 2-isocyanatoethyl methacrylate 389104-86-3P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, terminated with 5-norbornene-2,3-dicarboxylic anhydride, carbamate ester with 2-isocyanatoethyl methacrylate 389104-87-4P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, terminated with glutaric anhydride, carbamate ester with 2-isocyanatoethyl methacrylate 389104-89-6P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, terminated with di-tert-butyl carbonate, carbamate ester with 2-isocyanatoethyl methacrylate 389104-90-9P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, carbamate ester with 2-isocyanatoethyl methacrylate 389104-95-4P, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer polyamide sru, terminated with cyclohexane-1,2-dicarboxylic anhydride, carbamate ester with 2-isocyanatoethyl methacrylate
RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT 112480-82-7P 133440-72-9DP, 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diphenyl ether dicarboxylic acid dichloride copolymer, reaction products with termination acids 389077-92-3P 389077-94-5P 389077-95-6P 389077-97-8P 389077-99-0P 389078-01-7P 389078-02-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

IT 17322-98-4
RL: CAT (Catalyst use); USES (Uses)

(photoinitiators; photo-sensitive polybenzoxazole precursor resins and alkali-developable compns. useful for lithog. patterning contg. them)

L14 ANSWER 14 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:904293 CAPLUS
DN 136:38436
ED Entered STN: 14 Dec 2001
TI ***Photopolymers*** and use thereof in waveguides
IN Suyal, Navin; McEwan, Iain
PA Terahertz Photonics Limited, UK
SO PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C08F220-38
ICS C08F002-48
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 73
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001094430	A1	20011213	WO 2001-GB2498	20010607
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	GB 2375767	A1	20021127	GB 2002-15458	20010607
	GB 2375767	B2	20040114		
	EP 1287047	A1	20030305	EP 2001-936657	20010607
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004501241	T2	20040115	JP 2002-501978	20010607
	US 2003114619	A1	20030619	US 2002-297279	20021204
PRAI	GB 2000-13767	A	20000607		
	WO 2001-GB2498	W	20010607		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2001094430	ICM	C08F220-38
	ICS	C08F002-48
WO 2001094430	ECLA	C08F020/38
GB 2375767	ECLA	C08F020/38
JP 2004501241	FTERM	4J100/AL08P; 4J100/AL08S; 4J100/AL11S; 4J100/AL61Q; 4J100/AL62Q; 4J100/AL63R; 4J100/BA02Q; 4J100/BA02S; 4J100/BA07Q; 4J100/BA08Q; 4J100/BA51P; 4J100/BB01S; 4J100/BB03S; 4J100/BB07S; 4J100/BB12S; 4J100/BC04S; 4J100/BC43P; 4J100/BC43Q; 4J100/BC43S; 4J100/CA01; 4J100/CA04; 4J100/DA25; 4J100/DA61; 4J100/JA32
US 2003114619	NCL	526/286.000
	ECLA	C08F020/38

AB The present invention provides an optical polyacrylate wherein at least 20% of the total monomer repeating units are: CH2CR1(CO2R2) wherein R1 is H or a C1-12 aliph. and/or arom. group, and R2 is an aliph. and/or arom. moiety contg. at least one S atom. In further aspects, the present invention provides methods of making the above polymers, as well as planar lightwave circuits formed from such polymers. A waveguide was prepd. by ***photopolymn*** . of an ethoxylated bisphenol A ***dimethacrylate*** -Me methacrylate-phenylthioethyl acrylate-poly(Me methacrylate) mixt. (I) spun-coated on a substrate, removal of unreacted parts by washing, and covering with a second I formulation.
ST optical acrylate polymer waveguide
IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic; ***photopolymers*** and use thereof in waveguides)
IT Optical materials
Waveguides

(***photopolymers*** and use thereof in waveguides)
IT 380306-78-5P 380306-79-6P ***380306-80-9P*** 380306-81-0P
380306-82-1P 380306-83-2P ***380376-31-8P***
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(***photopolymers*** and use thereof in waveguides)
IT 9011-14-7, Poly(methylmethacrylate)
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(***photopolymers*** and use thereof in waveguides)
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Essilor Int; FR 2765879 A 1999 CAPLUS
(2) Toray Industries; EP 0384725 A 1990 CAPLUS

L14 ANSWER 15 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:217327 CAPLUS
DN 134:253116
ED Entered STN: 28 Mar 2001
TI Heat-treatment methods of heat-resistant resin precursor compositions
IN Yoshimura, Toshio; Yuba, Tomoyuki
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08G073-06
ICS B05D003-02; B05D007-24
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 76
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001081191	A2	20010327	JP 1999-261643	19990916
PRAI JP 1999-261643		19990916		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001081191	ICM	C08G073-06
	ICS	B05D003-02; B05D007-24

GI

/ Structure 65 in file .gra /

AB Title compns. for improving uniforminity of semiconductor pattern dimension comprise (1) heat-resistant resin precursor with major component I [R' contains .gtoreq.2 carbon atoms and with valence .gtoreq.3, R2 is org. groups with .gtoreq.2 C atoms and valence 2-6, R3 = H, alkali metal ions, NH4 ion, C1-30 org. groups, n = integer 0-2, (for n = 2, R3's could be identical or different), p,q = integer 0-4, n+q >0, m = integer 3-10,000]; (2) amines contg. double bonds and C1-30 org. groups; (3) photoinitiators or photosensitive compds.; and (4) quinonediazide compds. The uniformity inside the surface of pattern size of polyimide precursor and polybenzoxazole precursor improves. Title heat treatment involves heating soln. of title compns. formed on base plate with .gtoreq.4 hot plates with different temps. from low temp. to high temp.
ST polyamide compn amine photoinitiator quinonediazide heat treatment hot plate; heat resistant polyamide polybenzoxazole polyimide compn
IT Heat-resistant materials
Heating
Semiconductor device fabrication
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)
IT Polyamides, uses
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)
IT Polyamic acids
RL: SPN (Synthetic preparation); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polybenzoxazoles
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polyimides, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Amines, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polymerization catalysts
(***photopolymn*** .; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polysiloxanes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamide-polyimide-; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polyimides, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamide-polysiloxane-; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polysiloxanes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-polyimide-, fluorine-contg.; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polyimides, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-siloxane-, fluorine-contg.; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polysiloxanes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyimide-, fluorine-contg.; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polysiloxanes, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyimide-; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polyamides, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyimide-polysiloxane-; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polyethers, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyimide-siloxane-, fluorine-contg.; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polyimides, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polysiloxane-, fluorine-contg.; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT Polyimides, preparation
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polysiloxane-; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT 90-94-8, Michler's ketone 96-48-0, .gamma.-Butyrolactone 98-29-3, p-tert-Butylcatechol

RL: CAT (Catalyst use); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT ***211873-97-1P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-isophthalic chloride-glycidyl methyl ether copolymer ***330687-42-8P*** , 2,2-Bis(3-amino-4-hydroxyphenyl)hexafluoropropane-4,4'-diaminodiphenyl ether-1,3-Bis(3-aminopropyl)tetramethyldisiloxane-trimellitic anhydride chloride-glycidyl methyl ether copolymer 330687-43-9P, 1,3-Bis(3-aminopropyl)tetramethyldisiloxane-maleic anhydride-3,4,3',4'-Diphenyl ether tetracarboxylic anhydride-5',5''-diamino-2',2''-dihydroxy-isophthalanilide copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT 14343-69-2D, Azide, di-, quinone derivs. 17292-57-8 21829-25-4, Nifedipine 100577-12-6, (3-Methacryloxypropyl)dimethoxysilane 172491-61-1, 4NT 300
RL: TEM (Technical or engineered material use); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT 103-01-5, N-Phenylglycine 63226-13-1, 3,3'-Carbonylbis(7-diethylaminocoumarin)
RL: CAT (Catalyst use); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polymeric precursor compns.)

IT 72854-69-4P 84329-58-8P, 4,4'-Diaminodiphenyl ether-1,3-Bis(3-aminopropyl)Tetramethyldisiloxane-pyromellitic anhydride-3,3',4,4'-benzophenonetetracarboxylic dianhydride copolymer 106709-71-1P, Pyromellitic anhydride diester with 2-hydroxyethyl methacryalte-4,4'-Diaminodiphenyl ether copolymer 251904-83-3P, 2,2'-Bis(trifluoromethyl)benzidine-1,3-Bis(3-aminopropyl)tetramethyldisiloxane-pyromellitic anhydride-3,3',4,4'-benzophenonetetracarboxylic dianhydride-3,3',4,4'-biphenyltetracarboxylic dianhydride copolymer 303008-86-8P, 4,4'-Diaminodiphenyl ether-1,3-Bis(3-aminopropyl)Tetramethyldisiloxane-pyromellitic anhydride-3,3',4,4'-benzophenonetetracarboxylic dianhydride copolymer ester with glycidyl methacrylate 330687-41-7P, Pyromellitic anhydride-1,3-Bis(3-aminopropyl)Tetramethyldisiloxane-3,3',4,4'-biphenyltetracarboxylic dianhydride-3,3',4,4'-benzophenonetetracarboxylic dianhydride-BEM S copolymer
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polymeric precursor compns.)

IT 120-07-0, N-Phenyldiethanolamine
RL: TEM (Technical or engineered material use); USES (Uses)
(formulation and heat-treatment methods of heat-resistant polymeric precursor compns.)

IT 99-57-0 4891-67-2, Isophthalic anhydride
RL: RCT (Reactant); RACT (Reactant or reagent)
(in prepn. of of heat-resistant polyimide resin precursor)

IT 18349-60-5P 25596-69-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(in prepn. of of heat-resistant polyimide resin precursor)

IT 538-75-0, Dicyclohexylcarbodiimide 583-39-1
RL: CAT (Catalyst use); USES (Uses)
(photosensitive monomer; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT 15625-89-5, Trimethylolpropane triacrylate
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive monomer; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

IT 97-90-5, Ethylene glycol ***dimethacrylate***
RL: MOA (Modifier or additive use); USES (Uses)
(photosensitive monomer; formulation and heat-treatment methods of heat-resistant polymeric precursor compns.)

IT 105-16-8, N,N-Diethylaminoethylmethacrylate 13081-44-2, N,N-Dimethylaminoethylmethacrylamide
RL: TEM (Technical or engineered material use); USES (Uses)
(photosensitive monomer; formulation and heat-treatment methods of

heat-resistant polymeric precursor compns.)
IT 872-50-4, N-Methyl-2-pyrrolidone, uses
RL: NUU (Other use, unclassified); USES (Uses)
(solvent; formulation and heat-treatment methods of heat-resistant polyamide resin precursor compns.)

L14 ANSWER 16 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:210055 CAPLUS
DN 134:253284
ED Entered STN: 23 Mar 2001
TI Optical lenses having low refractive indexes and transparency and processability and resistance to chemicals and light and low moisture absorption and good mechanical strength
IN Takano, Kiyoshi; Kinoshita, Koji; Hashimoto, Yutaka
PA Dainippon Ink and Chemicals, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 14 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G02B003-00
ICS C08F220-22
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001074912	A2	20010323	JP 1999-251457	19990906
PRAI JP 1999-251457		19990906		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001074912	ICM	G02B003-00
	ICS	C08F220-22

AB Lenses having n < 1.50 are prepd. from radiation-curable compns. contg. F compds. and nonfluorine polyfunctional monomers. Thus, a test piece was prepd. from 77.0:20.5:1.5:1.0 perfluorooctylethyl acrylate-dicyclopentanyl acrylate-isobornyl acrylate-dicyclopentenyl acrylate copolymer 40.9, perfluorooctylethyl acrylate 45.3, dicyclopentanyl acrylate 2.9, trimethylolpropane triacrylate 5.2, neopentyl glycol ***diacrylate*** 5.2, and 2-hydroxy-2-methyl-1-phenyl-1-one 0.5 part.
ST optical lens fluoropolymer; fluoro vinyl monomer photochem polymn lens
IT Lenses
Refractive index
UV radiation
(optical lenses having low refractive indexes and transparency and processability and resistance to chems. and light and low moisture absorption and good mech. strength)
IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(optical lenses having low refractive indexes and transparency and processability and resistance to chems. and light and low moisture absorption and good mech. strength)
IT Monomers
RL: RCT (Reactant); RACT (Reactant or reagent)
(optical lenses having low refractive indexes and transparency and processability and resistance to chems. and light and low moisture absorption and good mech. strength)
IT Polymerization
(***photopolymn*** .; optical lenses having low refractive indexes and transparency and processability and resistance to chems. and light and low moisture absorption and good mech. strength)
IT ***149478-88-6P*** ***330689-06-0P*** 330804-98-3P 330804-99-4P 330805-00-0P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(optical lenses having low refractive indexes and transparency and processability and resistance to chems. and light and low moisture absorption and good mech. strength)
IT ***25656-08-0P*** 118610-84-7P 118610-94-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(optical lenses having low refractive indexes and transparency and processability and resistance to chems. and light and low moisture absorption and good mech. strength)

L14 ANSWER 17 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:144992 CAPLUS
DN 134:200622
ED Entered STN: 28 Feb 2001
TI Reflective liquid crystal devices and their manufacture
IN Goto, Tomohisa; Murai, Hideya; Mitsumura, Koji; Nakata, Daisaku
PA NEC Corp., Japan; Agency of Industrial Sciences and Technology; Shin Energy Sangyo Gijutsu Sogo Kaihatsu Kiko
SO Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G02F001-1334
ICS C09K019-02; C09K019-54
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2001056460	A2	20010227	JP 1999-230838	19990817
PRAI JP 1999-230838		19990817		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001056460	ICM	G02F001-1334
	ICS	C09K019-02; C09K019-54

AB The devices are assembled with substrates, and in between, light control layers composed of liq. cryst. materials and polymers which are dispersed in the liq. cryst. materials periodically and regulate their movements. The process involves (i) injecting solns. contg. liq. cryst. materials, ***photopolymn*** . initiators, and polymer precursors and (ii) forming the polymers by visible laser irradn. The devices are characterized by low driving voltage, excellent hysteresis property, and high reflectance and are esp. suitable for displays, light valves, etc. Moreover, full color images using single display pixel can be achieved without polarizers and color filters.
ST reflective liq crystal display manuf polymer network; ***photopolymer*** stabilized reflective liq crystal display manuf; acrylic polymer network reflective LCD manuf; selective reflection liq crystal polymer stabilization
IT Polymer networks
(manuf. of reflective LCD with polymer network-stabilized liq. crystal layers)
IT Liquid crystal displays
(reflection; manuf. of reflective LCD with polymer network-stabilized liq. crystal layers)
IT 64401-02-1, R 551
RL: DEV (Device component use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
(R 551, cured; manuf. of reflective LCD with polymer network-stabilized liq. crystal layers)
IT 142902-19-0, ZLI 4788 147035-57-2, BL 036
RL: DEV (Device component use); USES (Uses)
(manuf. of reflective LCD with polymer network-stabilized liq. crystal layers)
IT ***178120-17-7P*** , 2,2,3,3,4,4-Hexafluoropentanediol 1,5-***diacrylate*** homopolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(manuf. of reflective LCD with polymer network-stabilized liq. crystal layers)

L14 ANSWER 18 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:911310 CAPLUS
DN 134:78419
ED Entered STN: 29 Dec 2000
TI Optical devices made from radiation curable fluorinated compositions
IN Xu, Baopei; Eldada, Lovay; Norwood, Robert; Blomquist, Robert

PA Corning Incorporated, USA
SO PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C08F002-46
ICS C08J003-28; G02B006-16; G02B001-04; G03C001-73; G03C005-00; G02F003-00
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 38, 74
FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000078819	A1	20001228	WO 2000-US16997	20000621
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6306563	B1	20011023	US 1999-337337	19990621
CA 2374374	AA	20001228	CA 2000-2374374	20000621
AU 2000056279	A5	20010109	AU 2000-56279	20000621
BR 2000011774	A	20020326	BR 2000-11774	20000621
EP 1203031	A1	20020508	EP 2000-941588	20000621
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003502718	T2	20030121	JP 2001-505576	20000621
US 2002006586	A1	20020117	US 2001-908954	20010719
PRAI US 1999-337337	A	19990621		
WO 2000-US16997	W	20000621		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000078819	ICM	C08F002-46
	ICS	C08J003-28; G02B006-16; G02B001-04; G03C001-73; G03C005-00; G02F003-00
WO 2000078819	ECLA	C08F022/18; C08F022/20; C08G065/00B2F; G02B001/04D; G02B006/122C; G02B006/124; G02B006/13
US 6306563	NCL	430/321.000; 385/122.000; 385/131.000; 430/270.100; 430/290.000
	ECLA	C08F022/18; C08F022/20; C08G065/00B2F; G02B001/04D; G02B006/122C; G02B006/124; G02B006/13
US 2002006586	NCL	430/321.000
	ECLA	C08F022/18; C08F022/20; C08G065/00B2F; G02B001/04D; G02B006/122C; G02B006/124; G02B006/13

AB Methods of making optical elements are described which entail forming a core ***photopolymerizable*** compn. layer by applying to a support a core ***photopolymerizable*** compn. including .gtoreq.1 photoinitiator and .gtoreq.1 core ***photopolymerizable*** monomer, oligomer, or polymer having .gtoreq.1 ***photopolymerizable*** group, the core ***photopolymerizable*** monomer, oligomer, or polymer including a perfluorinated substituent; imagewise exposing the core ***photopolymerizable*** compn. layer to sufficient actinic radiation to effect the at least partial polymn. of an imaged portion and to form .gtoreq.1 non-imaged portion of the core ***photopolymerizable*** compn. layer; removing the nonimaged portion(s) without removing the imaged portion to form a light transmissive patterned core from the imaged portion; applying an upper cladding polymerizable compn. onto the patterned core; and at least partially curing the upper cladding compn., wherein the upper cladding and the core-interfacing surface of the support have a lower refractive index than the core. Cores may also be formed by a method selected from reactive ion etching, micro replication, direct laser writing, and laser ablation after a core layer formed from a ***photopolymerizable*** compn. was at least partially cured. Waveguides formed using the methods are also described , as are the ***photopolymerizable*** compns. Methods for optical transmission using the devices are also described. Octafluorohexanediol ***diacrylate***

ST optical device photocurable fluorinated compn

IT Fluoropolymers, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(acrylic; optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT Crosslinking
Optical waveguides
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT Acrylic polymers, uses
Fluoropolymers, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT 148045-66-3D, L-9367, polymers, reaction products with acrylates
315209-50-8D, L 12043, polymers, reaction products with acrylates
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT ***2264-01-9DP*** , polymers, reaction products with acrylates
214773-62-3P
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT 173940-48-2DP, Fluorolink T, reaction products with acryloyl chloride
RL: DEV (Device component use); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT 814-68-6, Acryloyl chloride 148045-66-3, L-9367 173940-48-2, Fluorolink T
RL: RCT (Reactant); RACT (Reactant or reagent)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT 355-74-8P, 2,2,3,3,4,4,5,5-Octafluoro-1,6-hexanediol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT ***2264-01-9P***
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
IT 214773-26-9
RL: RCT (Reactant); TEM (Technical or engineered material use); RACT (Reactant or reagent); USES (Uses)
(optical devices made from radiation curable fluorinated compns. and their prepn. and use.)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) de Dobbelaere; US 5764820 A 1998 CAPLUS
(2) Eldada; Polymers Journal of Lightwave Technology 1996, V14(7) CAPLUS
(3) Eldada; Polymers Journal of Lightwave Technology 1996, V14(7) CAPLUS
(4) Maruo; US 5598501 A 1997 CAPLUS
(5) Minns; EP 0521360 A2 1993 CAPLUS
(6) Shacklette; US 5850498 A 1998

L14 ANSWER 19 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:758241 CAPLUS
DN 134:357523
ED Entered STN: 30 Oct 2000
TI Improvement of photocured composite resin using low viscosity monomer substituted by fluorine
AU Takahashi, Kuninobu
CS Graduate School of Dentistry at Matsudo, Nihon University, Matsudo, Chiba, 271-8587, Japan

SO Shika Zairyo, Kikai (2000), 19(4), 367-381
CODEN: SZKIDA; ISSN: 0286-5858
PB Nippon Shika Riko Gakkai
DT Journal
LA Japanese
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 35
AB The low viscosity fluorinated monomer, 2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediol ***dimethacrylate*** (FHDDMA) was prepd. and used as a component of composite resin to improve the translucency and hydrolytic stability of photo cured composite resin. The refractive index of FHDDMA was smaller than that of TEGDMA and UDMA, and that of a mixt. of FHDDMA and UDMA was close to that of silica filler. The contact angle of water on the FHDDMA polymer was higher than that on the TEGDMA and the UDMA polymers. The polymn. reactivity, translucency, depth of cure, and water sorption of the FHDDMA composite resin were superior to those of the TEGDMA resin. The friction coeff. of the FHDDMA composite resin was less than that of the TEGDMA resin. After undergoing the boiling water-immersion tests, the decrease of knoop hardness of the FHDDMA composite resin was less than that of the TEGDMA resin, and the bending strengths of the FHDDMA composite resin were almost same as those of the TEGDMA resin.
ST fluorohexyl ***dimethacrylate*** photocured composite dental
IT Dental materials and appliances
(composites; improvement of photocured composite resin using low viscosity monomer substituted by fluorine)
IT Friction
Refractive index
(improvement of photocured composite resin using low viscosity monomer substituted by fluorine)
IT Polymerization
(***photopolymn*** .; improvement of photocured composite resin using low viscosity monomer substituted by fluorine)
IT ***66818-54-0P***
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(improvement of photocured composite resin using low viscosity monomer substituted by fluorine)
IT 109-16-0, Tegdma 72869-86-4, Udma
RL: PRP (Properties); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(improvement of photocured composite resin using low viscosity monomer substituted by fluorine)
IT ***339183-81-2P*** ***339183-82-3P*** ***339183-83-4P***
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(improvement of photocured composite resin using low viscosity monomer substituted by fluorine)
IT 355-74-8, 2,2,3,3,4,4,5,5-Octafluoro-1,6-hexanediol 920-46-7, Methacryloyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(improvement of photocured composite resin using low viscosity monomer substituted by fluorine)

L14 ANSWER 20 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:172826 CAPLUS
DN 132:309264
ED Entered STN: 16 Mar 2000
TI Polymers for integrated optical waveguides manufactured by molding
AU Muller, Lutz
CS Gerlingen, Germany
SO Fortschritt-Berichte VDI, Reihe 5: Grund- und Werkstoffe/Kunststoffe (1999), 577, i-vi, 1-137
CODEN: FVGWFX; ISSN: 0178-952X
PB VDI Verlag GmbH
DT Journal
LA German
CC 38-2 (Plastics Fabrication and Uses)
Section cross-reference(s): 56, 73
AB Polymer materials for single-mode waveguides for the near-IR spectral region were developed, in particular a copolymer contg. pentafluorophenyl methacrylate and tetrachloroethyl acrylate monomers, ethylene glycol

dimethacrylate as crosslinking agent,and small amts. of photo- and thermal initiators. Uncured material was filled in microstructured channels in electroformed PMMA and ***photopolymd*** . to produce the waveguide. The transmission and thermal stability are discussed, as are the methods used to characterize the waveguides and the electroforming device which was developed. Other possible methods for modifying the polymers in order to increase transmission are discussed. An electroplating method for the microforming of silicon structures is described und used for polymer molding.

ST polymer molded integrated optical waveguide application; polyacrylate property molding optical waveguide; polymethacrylate property molding optical waveguide; electroplating microforming silicon structure molding polymer

IT Electrodeposition
(electroplating method for microforming of silicon structures used for polymer molding)

IT Optical waveguides
Refractive index
(manuf. of integrated optical waveguides by molding of polymers)

IT Fluoropolymers, uses
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(manuf. of integrated optical waveguides by molding of polymers)

IT Glass fibers, uses
RL: MOA (Modifier or additive use); USES (Uses)
(silanized; manuf. of integrated optical waveguides by molding of polymers)

IT Polycarbonates, uses
Polyolefins
RL: NUU (Other use, unclassified); USES (Uses)
(substrate; manuf. of integrated optical waveguides by molding of polymers)

IT 7429-90-5, Aluminum, processes 7440-22-4, Silver, processes 7440-47-3, Chromium, processes 7440-57-5, Gold, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(conducting layer; electroplating method for microforming of silicon structures used for polymer molding)

IT 15289-97-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling agent; manuf. of integrated optical waveguides by molding of polymers)

IT 7440-21-3, Silicon, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(electroplating method for microforming of silicon structures used for polymer molding)

IT ***96526-54-4P*** , 2,2,3,3-Tetrafluoropropyl methacrylate-ethylene glycol ***dimethacrylate*** copolymer 263878-36-0P, 1,2,2,2-Tetrachloroethyl acrylate-pentafluorophenyl methacrylate copolymer 263878-37-1P, Butanediol ***diacrylate*** -1,2,2,2-tetrachloroethyl acrylate-pentafluorophenyl methacrylate copolymer 263878-38-2P 263878-39-3P 263878-40-6P, Triallyl cyanurate-1,2,2,2-tetrachloroethyl acrylate-pentafluorophenyl methacrylate copolymer
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(manuf. of integrated optical waveguides by molding of polymers)

IT 97-90-5D, EGDMA, polymers
RL: PRP (Properties)
(manuf. of integrated optical waveguides by molding of polymers)

IT 37685-19-1P, 1,2,2,2-Tetrachloroethyl acrylate homopolymer 111886-03-4P, Pentafluorophenyl methacrylate homopolymer
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(manuf. of integrated optical waveguides by molding of polymers)

IT 39726-71-1, 1,2,2,2-Tetrachloroethyl acrylate
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(monomer; properties of acrylate monomers used for manuf. of integrated optical waveguides)

IT 7473-98-5, Darocur 1173
RL: CAT (Catalyst use); PRP (Properties); USES (Uses)
(photoinitiator; manuf. of integrated optical waveguides by molding of polymers)

IT 7439-89-6, Iron, occurrence

RL: POL (Pollutant); OCCU (Occurrence)
(properties of acrylate monomers used for manuf. of integrated optical waveguides)
IT 13642-97-2, Pentafluorophenyl methacrylate
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(properties of acrylate monomers used for manuf. of integrated optical waveguides)
IT 7440-02-0, Nickel, processes 7440-50-8, Copper, processes
RL: PEP (Physical, engineering or chemical process); POL (Pollutant); OCCU (Occurrence); PROC (Process)
(properties of acrylate monomers used for manuf. of integrated optical waveguides and electroplating method for microforming of silicon structures)
IT 9011-14-7, PMMA
RL: NUU (Other use, unclassified); USES (Uses)
(substrate, Plexiglas VQ 101S; manuf. of integrated optical waveguides by molding of polymers)
IT 25585-20-0, Polymethacrylimide
RL: NUU (Other use, unclassified); USES (Uses)
(substrate; manuf. of integrated optical waveguides by molding of polymers)
RE.CNT 254 THERE ARE 254 CITED REFERENCES AVAILABLE FOR THIS RECORD
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L14 ANSWER 21 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:114471 CAPLUS
DN 133:44496
ED Entered STN: 17 Feb 2000
TI Design of (polymer/liquid crystal) composite films using UV curable acrylate monomer
AU Yamaguchi, Masahiro; Hasuo, Haruumi
CS Chem. Text. Ind. Res. Inst., Fukuoka Ind. Technol. Cent., Japan
SO Kenkyu Hokoku - Fukuoka-ken Kogyo Gijutsu Senta (1999), Volume Date 1998, 9, 84-89
CODEN: KFKSEH; ISSN: 0916-8230
PB Fukuoka-ken Kogyo Gijutsu Senta
DT Journal
LA Japanese
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 75
AB The mixt. of acrylate monomers, liq. crystal E7 (Merck), 2,4-diethylthioxanthone and silica gel was put between two ITO glass electrodes and polymd. by UV irradn. The optical properties of the obtained gel under AM modulated elec. field was investigated using He-Ne laser. The gel from 2-hydroxylethyl acrylate (30%) and polyethyleneglycol ***diacrylate*** (10%) shows that the min. voltage for driving is 33.5 V and that the basic transmittance is 1.7% and that in the elec. field is 77.3%.
ST polymer liq crystal composite film UV curable acrylate monomer
IT Polymerization
(***photopolymn*** .; polymn. by UV irradn. of mixt. of acrylate monomers, liq. crystal E7, diethylthioxanthone and silica gel between two ITO glass electrodes)
IT 96-33-3, Methyl acrylate 97-88-1, n-Butyl methacrylate 999-61-1, 2-Hydroxypropyl acrylate 1026-92-2, Diallyl terephthalate 1070-70-8, 1,4-Butanediol ***diacrylate*** 1663-39-4, tert-Butyl acrylate 2223-82-7, Neopentyl glycol ***diacrylate*** 2399-48-6, Tetrahydrofurfuryl acrylate 3524-68-3, Pentaerythritol triacrylate 4687-94-9, Bisphenol A diglycidyl ether ***diacrylate*** 7085-85-0, Ethylcyano acrylate 15625-89-5, Trimethylolpropane triacrylate 16969-10-1, 2-Hydroxy-3-phenoxypropyl acrylate 27905-45-9, Perfluorooctylethyl acrylate 28961-43-5, Ethoxylated trimethylolpropane triacrylate 48145-04-6, Phenoxyethyl acrylate ***61253-00-7*** , Octafluoropentyl methacrylate 64401-02-1
RL: PRP (Properties)
(driving voltage of composite films prepd. by)
IT 818-61-1, 2-Hydroxyethyl acrylate
RL: PRP (Properties)
(electrooptical property of polyethylene glycol ***diacrylate*** /hydroxylethyl acrylate composite film)
IT 407-47-6, 2,2,2-Trifluoroethyl acrylate 26570-48-9, Polyethylene glycol ***diacrylate***
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(electrooptical property of trifluoroethyl acrylate/polyethylene glycol ***diacrylate*** composite film cell)
IT 63748-28-7, e7 Liquid crystal
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(liq. crystal; polymn. by UV irradn. of mixt. of acrylate monomers, liq. crystal E7, diethylthioxanthone and silica gel between two ITO glass electrodes)

L14 ANSWER 22 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:802860 CAPLUS
DN 132:36803

ED Entered STN: 21 Dec 1999
TI Ultraviolet radiation-curable resin compositions and cured resins
IN Taniguchi, Nobuo; Yokojima, Minoru
PA Nippon Kayaku Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F290-06
ICS C03C025-02; C08F299-06; C09D175-16; C08G018-67
CC 38-3 (Plastics Fabrication and Uses)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 11349646	A2	19991221	JP 1998-164503	19980612
PRAI JP 1998-164503		19980612		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11349646	ICM	C08F290-06
	ICS	C03C025-02; C08F299-06; C09D175-16; C08G018-67

AB Resin compns. useful for claddings on optical fibers contain ***photopolymn*** . initiators and urethane (meth)acrylates prepd. from F-contg. polyols, org. polyisocyanates, and OH-contg. (meth)acrylates. Thus, films were prepd. from a urethane acrylate prepd. from Fomblen ZDOL TX 2000, trimethylhexamethylene diisocyanate, 3-(perfluorohexy)propenoxide acrylate 40, 1H,1H-perfluoro-n-octyl acrylate 30, 1H,1H,8H,8H-perfluoro-1,8-octanediol ***diacrylate*** 30, and 1-hydroxycyclohexyl Ph ketone 1 part.

ST UV crosslinking urethane acrylate; cladding optical fiber UV curable resin

IT Coating materials
Optical fibers
UV radiation
(UV-curable urethane (meth)acrylates for claddings on optical fibers)

IT Polyurethanes, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylates, fluorine-contg.; UV-curable urethane (meth)acrylates for claddings on optical fibers)

IT Crosslinking catalysts
(photochem.; UV-curable urethane (meth)acrylates for claddings on optical fibers)

IT Fluoropolymers, uses
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(urethane acrylate; UV-curable urethane (meth)acrylates for claddings on optical fibers)

IT 947-19-3, 1-Hydroxycyclohexyl phenyl ketone
RL: CAT (Catalyst use); USES (Uses)
(UV-curable urethane (meth)acrylates for claddings on optical fibers)

IT ***252652-80-5P*** 252652-87-2P 252669-72-0P
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(UV-curable urethane (meth)acrylates for claddings on optical fibers)

IT 146955-22-8P 252652-78-1P, Fomblen ZDOL TX 2000-3-(perfluorohexy)propenoxide acrylate-trimethylhexamethylene diisocyanate copolymer 252652-83-8P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(UV-curable urethane (meth)acrylates for claddings on optical fibers)

IT 79-10-7, 2-Propenoic acid, reactions 38565-52-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(UV-curable urethane (meth)acrylates for claddings on optical fibers)

L14 ANSWER 23 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:738166 CAPLUS
DN 132:50597
ED Entered STN: 19 Nov 1999
TI High resolution XPS investigation of photocured films containing perfluoropolyether acrylates
AU Bongiovanni, R.; Beamson, G.; Mamo, A.; Priola, A.; Recca, A.; Tonelli, C.
CS Department of Materials Science and Chemical Engineering, Politecnico di

Torino, Turin, 10129, Italy
SO Polymer (1999), Volume Date 2000, 41(2), 409-414
CODEN: POLMAG; ISSN: 0032-3861
PB Elsevier Science Ltd.
DT Journal
LA English
CC 37-5 (Plastics Manufacture and Processing)
Section cross-reference(s): 35, 38
AB The paper reports an XPS investigation on films obtained by ***photopolymg*** . new perfluoropolyether methacrylates as pure products or added in low amts. to a typical UV-curable resin (Bisphenol A bis-ethylether ***diacrylate***). The structure of the fluorinated monomers is Rf-Rh type, where Rh = -CH2O-CO-NH-CH2-CH2-OCOC(CH3)=CH2 while Rf = CF3-CF2O-(CF2O)n(CF2-CF2O)m-CF2- for monomer 1 (PM 890, m/n = 1.68), and Rf= Cl-CF2-CF(CF3)-O-(CF2CF(CF3)-O)2-CF2- for monomer 2. Quant. evaluation of the different at. ratios was performed using take-off angles of 45 and 10.degree. (very surface region) on both film sides, the one in contact with the glass substrate and the one exposed to air. The results obtained indicate strong fluorine enrichment on the air side of the films and a concn. gradient at the surface, while the glass side has a compn. similar to the bulk.
ST XPS photocured perfluoropolyether acrylate film
IT Polyoxyalkylenes, properties
RL: PRP (Properties)
(fluorine-contg., vinyl group-terminated, polymers with bisphenol A polyethylene glycol diether ***diacrylate*** ; high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT Polyethers, properties
RL: PRP (Properties)
(fluorine-contg.; high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT Glass substrates
Surface composition
X-ray photoelectron spectra
(high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT Polyoxyalkylenes, properties
RL: PRP (Properties)
(perfluoro, vinyl group-terminated, polymers with bisphenol A polyethylene glycol diether ***diacrylate*** ; high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT Polyethers, properties
RL: PRP (Properties)
(perfluoro; high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT Polymerization
(***photopolymn*** .; high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT Fluoropolymers, properties
Fluoropolymers, properties
RL: PRP (Properties)
(polyether-; high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT Fluoropolymers, properties
Fluoropolymers, properties
RL: PRP (Properties)
(polyoxyalkylene-, vinyl group-terminated, polymers with bisphenol A polyethylene glycol diether ***diacrylate*** ; high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
IT 64401-02-1D, polymers with vinyl group-terminated perfluoro polyethers
252879-98-4 ***252879-99-5***
RL: PRP (Properties)
(high-resoln. XPS investigation of photocured films contg. perfluoropolyether acrylates)
RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(12) Tonelli, C; EP 870778 1997 CAPLUS
(13) Yoon, S; Macromolecules 1986, V19, P1068 CAPLUS

L14 ANSWER 24 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:507242 CAPLUS
DN 132:98069
ED Entered STN: 16 Aug 1999
TI ***Dimethacrylate*** monomers with varied fluorine contents and distributions
AU Stansbury, J. W.; Antonucci, J. M.
CS Dental and Medical Materials Group, Polymers Division, National Institute of Standards and Technology, Gaithersburg, MD, 20899-8545, USA
SO Dental Materials (1999), 15(3), 166-173
CODEN: DEMAEP; ISSN: 0109-5641
PB Elsevier Science Ltd.
DT Journal
LA English
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 25, 35
AB There are many unique properties assocd. with fluorinated polymers that make these materials attractive for use in the challenging oral environment. This study was devised to better define the influence of fluorine content and its structural distribution on properties of fluorinated resins and composites, esp. with regard to their water-related and mech. properties. A series of fluorinated ***dimethacrylate*** monomers was prepd. by reaction of arom. ***diepoxides*** with fluoroalcs. and subsequent conversion of the resulting diols to the methacrylates. Composites based on monomer systems comprised of the fluorinated monomers with 1,10-decamethylene ***dimethacrylate*** and reinforced with silanized quartz filler were evaluated for conversion, water contact angle, water sorption and diametral tensile strength. By selection of reactants, fluorine was introduced as trifluoromethyl groups, extended fluoroalkyl pendant chains, or combinations of the two. ***Photopolymn*** . conversion among the exptl. composites was generally equal to or greater than that of a conventional Bis-GMA/TEGDMA composite. While the water contact angles generally increased with fluorine content, no correlation was obtained between fluorine content and water sorption of the composites. The mech. strength of the fluorinated composites showed a general decline with increasing fluorine content and consistent variations due to specific structural features. A versatile route to fluorinated ***dimethacrylates*** with diverse structural and fluorine distribution patterns is presented. Composites from these monomers are very hydrophobic but have relatively low mech. strength. The monomers described can be considered as useful additives to moderate the water sorption of conventional resins. However, the results of this study point to specific fluorinated resin structures that are expected to provide a more optimal balance between hydrophobicity and mech. strength that will improve the long-term performance of dental composites.
ST fluoro methacrylate monomer prepn dental composite
IT Dental materials and appliances
(composites; ***dimethacrylate*** monomers with varied fluorine contents and distributions for dental composites)
IT Monomers
RL: POF (Polymer in formulation); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fluoro; ***dimethacrylate*** monomers with varied fluorine contents and distributions for dental composites)
IT Polymerization
(***photopolymn*** .; ***dimethacrylate*** monomers with varied fluorine contents and distributions for dental composites)
IT 194919-66-9P 254735-95-0P 254735-96-1P 254735-97-2P 254735-98-3P 254735-99-4P 254736-00-0P 254736-01-1P
RL: POF (Polymer in formulation); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(***dimethacrylate*** monomers with varied fluorine contents and

distributions for dental composites)
IT 109-16-0 1565-94-2, Bis-GMA 6701-13-9, 1,10-Decamethylene ***dimethacrylate***
RL: POF (Polymer in formulation); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(***dimethacrylate*** monomers with varied fluorine contents and distributions for dental composites)
IT 423-56-3 920-46-7, Methacryloyl chloride 1675-54-3 2010-61-9 ***2994-63-0*** 26146-93-0 85800-11-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(***dimethacrylate*** monomers with varied fluorine contents and distributions for dental composites)
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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L14 ANSWER 25 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:231802 CAPLUS
DN 130:319654
ED Entered STN: 14 Apr 1999
TI Fluoropolymer-based photosensitive resin composition, manufacture of its film, and material having the film as electric parts
IN Kaji, Makoto; Kuwana, Yasuhiro; Suzuki, Katsumi; Matsukura, Ikuo; Yokozuka, Shunsuke
PA Hitachi Chemical Co., Ltd., Japan; Asahi Glass Co., Ltd.
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-038
ICS G03F007-008; G03F007-028; H01L021-027; H01L021-312
CC 76-14 (Electric Phenomena)
Section cross-reference(s): 38
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11095431	A2	19990409	JP 1997-253226	19970918
PRAI JP 1997-253226		19970918		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 11095431	ICM	G03F007-038
	ICS	G03F007-008; G03F007-028; H01L021-027; H01L021-312

AB The compn. contains (A) fluoropolymers having photoreactive groups and (B) ***photopolymn*** . initiators and/or azides. The film is manufd. by forming a film from the above compn., irradiating the film with an active light via a photomask, and removing unexposed areas with a developer soln. The materials have the above patterned film as buffer coating films, passivation films, interlayer insulating films, .alpha.-ray shielding films, etc. in semiconductor devices and multilayer printed circuit

boards.
ST fluoropolymer photosensitive film patterning interlayer insulator; passivation film fluoropolymer photosensitive compn; ***photopolymn*** initiator fluoropolymer azide photosensitive compn
IT Fluoropolymers, uses
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(crosslinked; manuf. of patterned film from fluoropolymer-based photosensitive resin compn. for use as electronic parts)
IT Dielectric films
Electric apparatus
Semiconductor devices
(manuf. of patterned film from fluoropolymer-based photosensitive resin compn. for use as electronic parts)
IT Azides
RL: CAT (Catalyst use); USES (Uses)
(manuf. of patterned film from fluoropolymer-based photosensitive resin compn. for use as electronic parts)
IT ***223593-35-9P*** , 3-N,N-Dimethylaminopropyl methacrylate-3,3,4,4,5,5,6,6-octafluorooctane 1,8- ***diacrylate*** -perfluoro(butenyl vinyl ether) copolymer ***223593-40-6P*** ***223593-44-0P*** ***223593-49-5P*** ***223593-51-9P*** ***223593-53-1P***
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(crosslinked; manuf. of patterned film from fluoropolymer-based photosensitive resin compn. for use as electronic parts)
IT 119-61-9, Benzophenone, uses
RL: CAT (Catalyst use); USES (Uses)
(***photopolymn*** . initiator; manuf. of patterned film from fluoropolymer-based photosensitive resin compn. for use as electronic parts)

L14 ANSWER 26 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:531935 CAPLUS
DN 129:261199
ED Entered STN: 24 Aug 1998
TI Formation of polymer stabilized ferroelectric liquid crystal thin films using a fluorinated ***diacrylate***
AU Guymon, C. Allan; Bowman, Christopher N.
CS Dep. Polymer Sci., Univ. Southern Mississippi, Hattiesburg, MS, 39406-0076, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 972-973
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal
LA English
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 75
AB To study effects of adding a fluorinated ***diacrylate*** to a ferroelec. liq. crystal (FLC) , ***photopolymn*** . of a small amt. of octafluoro-1,6-hexanediol ***diacrylate*** dissolved in FLC (a 1:1 mixt. of W82 and W7) ferroelec. liq. is examd. at different polymn. conditions to explore effects of temp. and liq.-cryst. phase on the polymn. kinetics.
ST fluorinated ***diacrylate*** ***photopolymn*** ferroelec liq crystal; polymn kinetics octafluorohexanediol ***diacrylate*** liq crystal
IT Liquid crystals
(effects of temp. and liq.-cryst. phase on kinetics of ***photopolymn*** . fluorinated ***diacrylate*** dissolved in ferroelec. liq. crystal)
IT Polymerization kinetics
(***photopolymn*** .; effects of temp. and liq.-cryst. phase on kinetics of ***photopolymn*** . fluorinated ***diacrylate*** dissolved in ferroelec. liq. crystal)
IT ***2264-01-9***
RL: RCT (Reactant); RACT (Reactant or reagent)
(effects of temp. and liq.-cryst. phase on kinetics of ***photopolymn*** . fluorinated ***diacrylate*** dissolved in ferroelec. liq. crystal)

IT 65595-90-6, W7 92950-96-4, W82
RL: NUU (Other use, unclassified); USES (Uses)
(liq. crystal; effects of temp. and liq.-cryst. phase on kinetics of ***photopolymn*** . fluorinated ***diacrylate*** dissolved in ferroelec. liq. crystal)
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(3) Guymon, C; Science 1997, V275, P57 CAPLUS
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L14 ANSWER 27 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:531794 CAPLUS
DN 129:245573
ED Entered STN: 24 Aug 1998
TI Homopolymerization studies of new fluorinated ***dimethacrylate*** monomers
AU Stansbury, Jeffrey W.; Choi, Kyung M.
CS Polymers Div., Natl. Inst. Standards and Technol., Gaithersburg, MD, 20899, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1998), 39(2), 878-879
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal
LA English
CC 35-4 (Chemistry of Synthetic High Polymers)
AB A variety of synthetic routes based on alc.-epoxy addn. reactions was used to produce a series of ***dimethacrylate*** monomers with fluorine contents of 21 % to 51 %. Several monomers include urethane groups to provide hydrogen bonding reinforcement to the polymers. ***Photopolymn*** . produced relatively high, and in some cases, extremely high, degrees of methacrylate conversion in these homopolymers compared with ***dimethacrylates*** commonly used in dental resins. The water uptake of the fluorinated polymers without urethane groups was very low and decreased with increasing fluorine content. Water sorption in the fluorinated urethane ***dimethacrylate*** polymers was greater and varied considerably with the individual monomer structures.
ST fluorinated ***dimethacrylate*** monomer prepn polymn; fluoropolymer polydimethacrylate prepn characterization; water sorption fluoropolymer polydimethacrylate
IT Polymerization
Refractive index
(of fluorinated ***dimethacrylate*** monomers)
IT Fluoropolymers, preparation
RL: SPN (Synthetic preparation); PREP (Preparation)
(polymn. of fluorinated ***dimethacrylate*** monomers)
IT Water purification
(sorption; of fluorinated ***dimethacrylate*** polymers)
IT ***213267-95-9P*** ***213267-96-0P*** ***213267-97-1P***
213267-98-2P 213268-01-0P 213268-03-2P 213268-04-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and characterization and polymn. of)
IT ***213268-05-4P*** ***213268-06-5P*** ***213268-07-6P***
213268-08-7P 213268-09-8P 213268-10-1P 213268-11-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
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(2) Li, T; J Oral Rehabil 1996, V23, P158 CAPLUS
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L14 ANSWER 28 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:631554 CAPLUS
DN 127:307744
ED Entered STN: 03 Oct 1997
TI Two-component ***diacrylate*** networks from liquid-crystalline and non-liquid-crystalline monomers. Part 1. Synthesis of the monomers, phase behavior of the binary monomer mixtures, network formation
AU Braun, D.; Alig, I.; Junker, M.; Walther, J.
CS Deutsches Kunststoff-Institut, Darmstadt, D-64289, Germany
SO Angewandte Makromolekulare Chemie (1997), 250, 105-117
CODEN: ANMCBO; ISSN: 0003-3146
PB Huethig & Wepf
DT Journal
LA English
CC 35-4 (Chemistry of Synthetic High Polymers)
AB Two-component networks of ***diacrylate*** monomers were synthesized by photoinduced polymn. in the isotropic phase. In all systems one component was a liq.-cryst. ***diacrylate*** , whereas the second component was a non-liq.-cryst. ***diacrylate*** , which was varied in size, geometry, and polarity. The phase behavior of the monomer mixts. was analyzed by differential scanning calorimetry (DSC). It is influenced by the m.p. and the structure of the non-liq.-cryst. component. All samples were crosslinked in the isotropic phase 10.degree. above the phase transition temp. and a modified differential scanning calorimeter was used to investigate the enthalpies of ***photopolymn*** . The final value and the time dependence of the conversion of acrylate double bonds were calcd. from the DSC curves. The final degree of conversion of the acrylate double bonds was 53-71% for all samples, whereas no significant dependence of the degree of conversion on the chem. structure of the monomers or the reaction temp. was found. In contrast, the time dependence of the conversion was influenced by the chem. structure of the non-liq.-cryst. component.
ST ***diacrylate*** liq cryst mixt phase transition; polydiacrylate liq cryst monomer polymn enthalpy
IT Phase transition
(of mixts. of ***diacrylates*** and liq.-cryst. ***diacrylates***)
IT Liquid crystals
(phase behavior of mixts. of ***diacrylate*** and liq.-cryst. ***diacrylate*** and their polymer network formation)
IT Polymerization enthalpy
(photochem.; polymer network formation from mixts. of ***diacrylate*** and liq.-cryst. ***diacrylate***)
IT 4491-03-6, Bisphenol A ***diacrylate*** 84019-59-0 84948-17-4 ***108050-41-5***
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(phase behavior of mixts. of ***diacrylate*** and liq.-cryst. ***diacrylate*** and their polymer network formation)
IT 128866-56-8P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(phase behavior of mixts. of ***diacrylate*** and liq.-cryst. ***diacrylate*** and their polymer network formation)
IT 814-68-6, Acryloyl chloride 28084-48-2, 4-Hydroxyphenyl 4-hydroxybenzoate
RL: RCT (Reactant); RACT (Reactant or reagent)
(phase behavior of mixts. of ***diacrylate*** and liq.-cryst. ***diacrylate*** and their polymer network formation)
IT 106831-85-0P 106980-37-4P 137515-27-6P 160172-49-6P 197449-32-4P 197449-33-5P 197449-34-6P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(polymer network formation from mixts. of ***diacrylate*** and liq.-cryst. ***diacrylate*** and their properties)

L14 ANSWER 29 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:664100 CAPLUS
DN 125:288988
ED Entered STN: 09 Nov 1996
TI Liquid crystal display device and its manufacture
IN Kuryama, Takeshi; Ogawa, Hiroshi

PA Dainippon Ink & Chemicals, Japan
SO Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G02F001-1333
ICS C08F020-22
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08201786	A2	19960809	JP 1995-14436	19950131
	JP 3477880	B2	20031210		
PRAI	JP 1995-14436		19950131		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08201786	ICM	G02F001-1333
	ICS	C08F020-22

AB In the device comprising a pair of substrates with electrodes and a light modulation layer between them, the layer comprises a liq. crystal material and a transparent solid substance consisting of a polyfunctional (meth)acrylate deriv. polymer. The methacrylate deriv. has an alkoxy group, of which all or a part of the Hs are substituted for F and all the OH groups are esterified. The acrylate deriv. may be H2C:CR1COOX(CF2)nYOOCCR1:CH2 (X, Y = bond, C1-5 alkylene; R1 = H, Me; n = 1-10) and/or H2C:CR2COOPCH(ZCmF2m+1)QOOCCR2:CH2 (P, Q = bond, C1-5 alkylene; Z = bond, C1-5 alkylene; R2 = H, Me; m = 1-10). The optical modulation layer compn. contg. the liq. crystal material, the polymerizable polyfunctional (meth)acrylate deriv., and a ***photopolymn*** . initiator is sandwiched with a pair of substrates and irradiated for polymn. to form the liq. crystal display device. The device has low driving potential and good potential retention and gives high contrast images.

ST liq crystal display device light modulation; fluoro acrylate polymer display device

IT Optical imaging devices
(liq.-crystal, liq. crystal display device using fluoroacrylate polymer in light modulation layer)

IT 814-68-6P, Acryloyl chloride 83192-87-4P, 3,3,4,4,5,5,6,6-Octafluorooctane-1,8-diol
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(esterification of)

IT ***182926-35-8P*** , Lauryl acrylate-3,3,4,4,5,5,6,6-octafluro-1,8-octanediol ***diacrylate*** copolymer ***182926-36-9P*** , 1H,1H,7H-Dodecafluoroheptyl acrylate-3,3,4,4,5,5,6,6-octafluro-1,8-octanediol ***diacrylate*** copolymr ***182926-37-0P*** , Lauryl acrylate-2,2,3,3,4,4,5,5-octafluoro-1,6-hexanediol ***diacrylate*** copolymer 182926-38-1P, Lauryl acrylate-3-perfluorohexyl-2-acryloyloxypropyl acrylate copolymer 182926-39-2P, Lauryl acrylate-3-perfluorobutyl-2-acryloxyoxypropyl acrylate 182926-40-5P, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-Hexadecafluoro-1,10-decanediol ***diacrylate*** -lauryl acrylate copolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(liq. crystal display device using fluoroacrylate polymer in light modulation layer)

IT ***118643-50-8P*** , 3,3,4,4,5,5,6,6-Octafluoro-1,8-octanediol ***diacrylate***
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and polymn. of)

L14 ANSWER 30 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:387764 CAPLUS
DN 125:72142
ED Entered STN: 04 Jul 1996
TI Liquid-crystal optical device and fabrication thereof
IN Murai, Hideya; Goto, Tomohisa; Nakada, Daisaku

PA Nippon Electric Co, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G02F001-1333
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 08076097	A2	19960322	JP 1995-21812	19950209
JP 2885116	B2	19990419		
PRAI JP 1995-21812	A	19950209		
JP 1994-153193		19940705		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08076097	ICM	G02F001-1333

AB In a liq.-crystal device comprising a liq. crystal-contg. light-transmitting material layer sandwiched between a pair of substrates with electrodes .gtoreq.1 of which is transparent, .gtoreq.1 of the substrates is treated to allow the liq. crystal to align vertically and the layer comprises a liq. crystal material having neg. dielec. anisotropy and 1-20 wt.% of a polymer which is dispersed in the material to partially restrict the movement of the liq. crystal mols. A method of prepg. the device is also claimed, in which a mixed soln. contg. the liq. crystal material, a ***photopolymn*** . initiator, and 1-20 wt.% UV-curing resin is packed between the pair of the substrates followed by irradn. with UV. The device shows low operating voltage and hysteresis and high transmittance and provides high-contrast displays. Thus, a mixed soln. contg. ZLI-4788 (liq. crystal), 2,2,3,3,4,4-hexafluoropentanediol 1,5- ***diacrylate*** , and Irganox 907 (***photopolymn*** . initiator) was packed between a pair of glass substrates with transparent electrodes, which had been coated with Sunever 751 and heat-treated, and irradiated with UV to give a liq crystal device.
ST liq crystal optical device substrate; polymer liq crystal optical device; substrate liq crystal optical device; display liq crystal substrate polymer
IT Optical imaging devices
(liq.-crystal, liq.-crystal optical device having transmitting layer contg. polymers to partially restrict movement of liq. crystal mols.)
IT 142902-19-0, ZLI 4788 155576-34-4, ZLI 4850 178234-63-4, NR 1025XX
RL: DEV (Device component use); USES (Uses)
(liq.-crystal optical device having transmitting layer contg. polymers to partially restrict movement of liq. crystal mols.)
IT 27775-58-2P, Pentaerythritol triacrylate homopolymer 80164-51-8P, Kayarad R 551 homopolymer 126039-08-5P, UV 3000 ***178120-17-7P*** , 2,2,3,3,4,4-Hexafluoropentanediol 1,5- ***diacrylate*** homopolymer
RL: DEV (Device component use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(liq.-crystal optical device having transmitting layer contg. polymers to partially restrict movement of liq. crystal mols.)

L14 ANSWER 31 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:410641 CAPLUS
DN 121:10641
ED Entered STN: 09 Jul 1994
TI Preparation and cure behavior of ***dimethacrylates*** containing oligo(tetrafluoroethene) segments
AU Steinhauser, Norbert; Muelhaupt, Rolf
CS Freiburger Materialforschungszent., Inst. Makromol. Chem., Freiburg, D-79104, Germany
SO Polymer Bulletin (Berlin, Germany) (1994), 32(4), 403-10
CODEN: POBUDR; ISSN: 0170-0839
DT Journal
LA English
CC 37-3 (Plastics Manufacture and Processing)
AB Two novel families of ***dimethacrylate*** -based thermoset resins contg. oligo(tetrafluoroethene) segments with n = 1, 2, 3 tetrafluoroethene units were prepd. from di-Me tetrafluorosuccinate, di-Me octafluoroadipate and di-Me dodecafluorosuberate. Methacrylate

functionalities were detd. using 1H-NMR spectroscopy. Photocrosslinking by UV irradn. in the presence of photoinitiators affords amorphous networks. The influence of the oligo(tetrafluoroethene) segment length on glass transition temps., swelling, vol. shrinkage and thermal degrdn. was investigated.

ST fluoroethene acrylate resin prepn UV curing; photocuring fluoroethene acrylate resin; swelling fluoroethene acrylate resin; thermal degrdn fluoroethene acrylate resin; shrinkage fluoroethene acrylate resin curing; glass temp fluoroethene acrylate resin

IT Glass temperature and transition
(of acrylic fluoropolymer-polyesters)

IT Swelling, physical
(of acrylic fluoropolymer-polyesters in water and toluene)

IT Mechanical loss
(of acrylic fluoropolymer-polyesters, temp. effect on)

IT Polyesters, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(acrylic, fluorine-contg., prepn. and properties of)

IT Polyesters, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(acrylic-polyamide-, fluorine-contg., prepn. and properties of)

IT Fluoropolymers
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(acrylic-polyamide-polyester-, prepn. and properties of)

IT Fluoropolymers
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(acrylic-polyester-, prepn. and properties of)

IT Polyamides, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(acrylic-polyester-, fluorine-contg., prepn. and properties of)

IT Polymerization
(photochem., of ***dimethacrylate*** -terminated oligo(tetrafluoroethylene)s)

IT Acrylic polymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyamide-polyester-, fluorine-contg., prepn. and properties of)

IT Acrylic polymers, preparation
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process)
(polyester-, fluorine-contg., prepn. and properties of)

IT 2508-29-4, 5-Aminopentan-1-ol
RL: USES (Uses)
(amidation of di-Me oligo(tetrafluoroethylene)dicarboxylates with)

IT 356-36-5, Dimethyl tetrafluorosuccinate 2062-20-6, Dimethyl dodecafluorosuberate 3107-98-0, Dimethyl octafluoroadipate
RL: RCT (Reactant); RACT (Reactant or reagent)
(amidation of, with hydroxypentylamine)

IT 920-46-7, Methacryloyl chloride
RL: USES (Uses)
(esterification of oligo(tetrafluoroethylene)bis(N-(hydroxypentyl)amide)s with)

IT 868-77-9
RL: USES (Uses)
(esterification of oligo(tetrafluoroethylene)dicarboxylic acid chlorides with)

IT 336-06-1P, Octafluoroadipic acid chloride 1967-93-7P, Dodecafluorosuberic acid chloride
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and esterification of, with hydroxyethyl methacrylate)

IT 155734-55-7P 155734-67-1P 155734-68-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and methacrylation of)

IT ***155734-59-1P*** ***155734-60-4P*** ***155734-61-5P*** 155734-64-8P 155734-65-9P 155734-66-0P
RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN

(Synthetic preparation); PREP (Preparation); PROC (Process)
(prepn. and properties of)
IT ***155734-56-8P*** ***155734-57-9P*** ***155734-58-0P***
155734-62-6P 155734-63-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn., properties and ***photopolymn*** . of)
IT 28704-40-7, Bis(2-methacryloyloxyethyl) adipate homopolymer
RL: PRP (Properties)
(properties of)
IT 108-88-3, Toluene, properties 7732-18-5, Water, properties
RL: PRP (Properties)
(swelling of acrylic fluoropolymer-polyamide-polyesters in)

L14 ANSWER 32 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:325833 CAPLUS
DN 120:325833
ED Entered STN: 25 Jun 1994
TI Fluorinated photoinitiators and their application in UV curing of fluorinated monomers
IN Wu, Chengjiu
PA Alliedsignal Inc., USA
SO U.S., 7 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM C07C069-63
INCL 560184000
CC 42-3 (Coatings, Inks, and Related Products)
Section cross-reference(s): 35, 37
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5274179	A	19931228	US 1993-43318	19930406
	WO 9422925	A1	19941013	WO 1994-US3462	19940330
	W: JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 693087	A1	19960124	EP 1994-911744	19940330
	EP 693087	B1	19971112		
	R: CH, DE, FR, GB, IT, LI				
	JP 08508733	T2	19960917	JP 1994-522324	19940330
	US 35060	E	19951010	US 1994-252873	19940602
PRAI	US 1991-805156	B1	19911211		
	US 1993-43318	A	19930406		
	US 1993-54607	A2	19930430		
	WO 1994-US3462	W	19940330		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5274179	ICM	C07C069-63
	INCL	560184000
US 5274179	NCL	560/184.000; 522/044.000; 522/182.000; 554/213.000; 554/226.000; 560/138.000; 560/227.000; 568/331.000
US 35060	NCL	560/184.000; 554/213.000; 554/226.000; 560/138.000; 560/227.000; 568/331.000

OS MARPAT 120:325833
AB .alpha.-Hydroxymethylbenzoin deriv. photoinitiators having .gtoreq.1 terminal fluoroalkyl moiety are useful for ***photopolymg*** . and photocuring (non)fluorinated monomers, esp. fluorinated acrylic monomers as coatings. Thus, PhCOC(OH)PhCH2OCOCF(CF3)[OCF2CF(CF3)]3F (I) was prepd. by slow addn. of perfluoro-2,5,8-trimethyl-3,6,9-trioxadodecanoyl fluoride in CF2ClCCl2F to .alpha.-hydroxymethylbenzoin and Et3N in CH2Cl2. I with [CH2:CHCO2CH2CF(CF3)O[CF(CF3)CF2O]2C2F4]2 at 2:98 ratio, resp., was spin-coated on glass as a 2-.mu.m layer and completely cured by UV exposure for 1 min.
ST fluorine contg benzoin deriv photoinitiator; perfluorotrimethyltrioxadodec anoyl benzoin ester photoinitiator; fluoroacrylic coating fluorine contg photoinitiator
IT Fluoropolymers
RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(acrylic, coatings, spin-applied, on glass, prepn. of, photoinitiators for)

IT Polymerization catalysts
(photochem., fluorine-contg. benzoin derivs., for fluorine-contg. acrylic monomers)
IT Coating materials
(photocurable, fluoroacrylic, prepn. of spin-applied, on glass, photoinitiators for)
IT 1799-55-9DP, polymers with fluorine-contg. ***diacrylates***
29014-57-1P ***152220-51-4P*** ***153893-38-0P*** 153893-39-1DP, polymers with fluorine-contg. ***diacrylates*** 153893-40-4P
155555-73-0P 155555-74-1P 155555-75-2P ***155555-77-4P***
RL: TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(coatings, spin-applied, on glass, prepn. of, photoinitiators for)
IT 121-69-7, N,N-Dimethylaniline, uses
RL: USES (Uses)
(photoinitiators, contg. fluorine-contg. benzoin derivs., for fluorine-contg. acrylic monomers)
IT 29598-63-8DP, reaction products with fluoroalkyl epoxides 153893-23-3P
153893-24-4P 153893-25-5P 155555-72-9P
RL: PREP (Preparation)
(photoinitiators, prepn. of, for fluorine-contg. acrylic monomers)
IT 2043-57-4, 1-Iodo-1H,1H,2H,2H-perfluorooctane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzoin Me ether)
IT 27639-98-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hydroxymethylbenzoin)
IT 3524-62-7, Benzoin methyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with iodotetrahydroperfluorooctane)
IT 15121-78-5, .alpha.-Hydroxymethylbenzoin 29598-63-8, .alpha.-Hydroxymethylbenzoin methyl ether
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with perfluorotrimethyltrioxadodecanoyl fluoride)

L14 ANSWER 33 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:192568 CAPLUS
DN 120:192568
ED Entered STN: 16 Apr 1994
TI Fluorinated monomers cured in the presence of terminally fluorinated group-containing ketones
IN Wu, Chengjiu
PA Allied-Signal, Inc., USA
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM C08F020-24
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 25, 37
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9312150	A1	19930624	WO 1992-US10733	19921210
	W: JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 616617	A1	19940928	EP 1993-900190	19921210
	EP 616617	B1	19970219		
	R: DE, FR, GB, IT				
	JP 07502066	T2	19950302	JP 1992-511093	19921210
	JP 3204976	B2	20010904	JP 1993-511093	19921210
	US 5391587	A	19950221	US 1993-54607	19930430
PRAI	US 1991-805156	A	19911211		
	WO 1992-US10733	W	19921210		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9312150	ICM	C08F020-24
US 5391587	NCL	522/040.000; 522/041.000; 522/042.000; 522/043.000; 522/044.000; 522/045.000

AB Photoinitiators having terminal fluoroalkyl groups are useful for polymg. and photocuring fluorinated as well as non-fluorinated monomer, esp.

fluorinated acrylic monomer. PhCOCMe2OCH2CH2(CF2)8F (I) was prepd. by slowly adding perfluorooctanoyl chloride in THF to 2-hydroxy-2-methyl-1-phenylpropan-1-one in the presence of Et3N in THF and stirring 2 h. It took 1 min to completely cure a 1:99 I-CH2:CHC(O)OCH2(CF2)4CH2OC(O)CH:CH2 mixt. with UV light.

ST fluoro ***diacrylate*** UV polymn catalyst; fluorinated arom ketone polymn catalyst; perfluoro benzoin ether polymn catalyst prepn

IT Alcohols, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(C8-14, .gamma.-.omega.-perfluoro, reaction of, with benzyl in the presence of dimethylsulfate)

IT Crosslinking catalysts
Polymerization catalysts
(photochem., terminally fluorinate group-contg. ketones, for fluorinated and nonfluorinated monomer)

IT Fluoropolymers
RL: PREP (Preparation)
(polyacrylate-, prepn. of, ***photopolymn*** . catalysts for)

IT Perfluoro compounds
RL: RCT (Reactant); RACT (Reactant or reagent)
(.gamma.-.omega.-, C8-14, alcs., reaction of, with benzyl in the presence of dimethylsulfate)

IT 153893-23-3P 153893-25-5P 153893-26-6P 153893-27-7P 153893-28-8P
153893-30-2P 153893-31-3P 153893-33-5P 153893-34-6P 153893-35-7P
153893-36-8P 153893-37-9P
RL: PREP (Preparation)
(prepn. of)

IT 153893-22-2P 153893-24-4P
RL: PREP (Preparation)
(prepn. of, as photoinitiator for fluorinated and nonfluorinated monomers)

IT 1799-55-9DP, polymers with fluoropolymers ***153893-38-0P***
153893-40-4DP, polymers with fluoropolymers 153893-40-4P
RL: PREP (Preparation)
(prepn. of, photocure catalyst for)

IT 307-30-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with arom. ketone derivs.)

IT 335-64-8 2641-34-1 27639-98-1 65294-16-8 153893-29-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with arom. ketones)

IT 134-81-6D, fluoroalkyl alc. derivs. 2043-57-4 153893-32-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with benzyl in the presence of sodium methoxide)

IT 1074-12-0, Phenylglyoxal
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with heptafluorobutanol)

IT 134-81-6 947-19-3 29598-63-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with perfluorinated compd.)

IT 947-19-3D, 1-Hydroxycyclohexylphenyl ketone, fluoroalkyl epoxide derivs.
3524-62-7, Benzoin methyl ether 5623-26-7 29598-63-8D, fluoroalkyl epoxide derivs. 110538-16-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with perfluoro compds.)

IT 7473-98-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with perfluoronated compd.)

IT 375-01-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with phenylglyoxal)

L14 ANSWER 34 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:32694 CAPLUS
DN 120:32694
ED Entered STN: 22 Jan 1994
TI Fluorine-containing acrylic rubber compositions
IN Nakagome, Seiji
PA Nok Corp, Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent

LA Japanese
IC ICM C08F220-22
ICS C08F220-18; C08F220-28
ICA C08F299-02
CC 39-9 (Synthetic Elastomers and Natural Rubber)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 05117333	A2	19930514	JP 1991-313573	19911031
PRAI JP 1991-313573		19911031		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 05117333	ICM	C08F220-22
	ICS	C08F220-18; C08F220-28
	ICA	C08F299-02

AB The title compns. giving transparent crosslinked products contain copolymers of CH2:CHCO2(CH2)p(CF2)qX (I; X = H, F; p = 1,2; q = 1-8 integer), dicyclopentenyl group-contg. (meth)acrylates, and CH2:CR1CO2(CH2CH2O)nR2 (II; R1 = H, Me; R2 = H, lower alkyl; n = 1-4 integer), II or CH2:CR1CO(OCH2CHR1)rOCOR1:CH2 (R1 = same as II; r = 1-10 integer), and org. peroxide initiators or ***photopolymn*** initiators. Manuf. process for the acrylic copolymers of I, dicyclopentenyl group-contg. (meth)acrylates, and II is also claimed. Thus, octafluoropentyl acrylate (III) 915.2, dicyclopentenyl acrylate (IV) 40.8, diethylene glycol monomethyl ether methacrylate (V) 112.8 g were polymd. in the presence of 2-mercaptoethanol and AIBN in MEK to give 320 g 80:5:15 III-IV-V copolymer, 100 parts of which was mixed with 10 parts tetraethylene glycol ***diacrylate*** and Darocur 1173, then irradiated with 500 W Xe-Hg lamp under N atm. for 5 s to give a crosslinked film showing light transmittance 93.5%.
ST fluorinated acrylic rubber compn transparent
IT Polymerization catalysts
(fluorine-contg. acrylic rubber compns. contg.)
IT Rubber, synthetic
RL: USES (Uses)
(acrylic, fluorine-contg., crosslinked, transparent)
IT 6731-36-8, Perhexa 3M
RL: USES (Uses)
(fluorine-contg. acrylic rubber compns. contg.)
IT 7473-98-5, Darocur 1173
RL: USES (Uses)
(***photopolymn*** initiators, fluorine-contg. acrylic rubber compns. contg.)
IT ***152140-49-3*** ***152140-50-6*** ***152140-51-7***
RL: USES (Uses)
(rubber, crosslinked, transparent)

L14 ANSWER 35 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:169765 CAPLUS
DN 118:169765
ED Entered STN: 01 May 1993
TI Fluorine-containing (meth)acrylates and adhesives derived from them
IN Kawaguchi, Toshio
PA Tokuyama Soda Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07C069-63
ICS C07C069-708; C08F020-22; C09J004-02
CC 35-2 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 38, 63
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 04221344	A2	19920811	JP 1990-413274	19901221
PRAI JP 1990-413274		19901221		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 04221344	ICM	C07C069-63

ICS C07C069-708; C08F020-22; C09J004-02

AB The monomers are CH2:CRCO2ZO2CR1CO2H, where R = H or alkyl, Z = alkylene, and R1 = perfluoroalkylene or perfluorooxyalkylene. CH2:CMeCO2(CH2)2O2CCF(CF3)O(CF2)2OCF(CF3)CO2H was prepd., mixed (10 parts) with bisphenol A ethoxylate ***dimethacrylate*** 40, neopentyl glycol ***dimethacrylate*** 30, triethylene glycol ***dimethacrylate*** 20, silane-treated quartz powder 100, Bz2O2 2, and hydroquinone mono-Me ether 0.05 part to prep. an adhesive.

ST fluoro acrylate peroxide adhesive

IT Adhesives
(fluorine-contg. (meth)acrylate polymers)

IT Dental materials and appliances
(adhesives, fluorine-contg. (meth)acrylate polymers for)

IT Amines, uses
RL: CAT (Catalyst use); USES (Uses)
(aryl, catalysts, with sulfinic acids, for polymn. of fluorine-contg. (meth)acrylates)

IT 88935-05-1 ***146878-39-9*** ***146878-41-3*** ***146878-43-5*** ***146878-45-7*** ***146878-46-8*** ***146878-48-0*** ***146878-50-4*** ***146878-51-5*** ***146878-52-6*** ***146878-53-7*** ***146878-54-8*** ***146878-55-9*** ***146878-56-0*** ***146878-57-1*** 146878-58-2 146878-59-3 146878-60-6 146878-61-7 146878-62-8 146878-63-9
RL: USES (Uses)
(adhesives)

IT 11105-45-6
RL: USES (Uses)
(adhesives for, fluorine-contg. (meth)acrylate polymers as)

IT 76279-17-9
RL: USES (Uses)
(adhesives, for tooth enamel and chromium-nickel alloy)

IT 75-91-2, tert-Butyl hydroperoxide 78-67-1, AIBN 80-15-9 94-36-0, Benzoyl peroxide, uses 105-74-8, Lauroyl peroxide 762-12-9 1338-23-4, Methyl ethyl ketone peroxide 12262-58-7, Cyclohexanone peroxide 13393-65-2 23886-52-4
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for polymn. of fluorine-contg. (meth)acrylates)

IT 824-79-3 873-55-2 41978-16-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, with amines, for polymn. of fluorine-contg. (meth)acrylates)

IT 504-17-6 1809-14-9
RL: CAT (Catalyst use); USES (Uses)
(catalysts, with photosensitizers, for polymn. of fluorine-contg. methacrylates and polymethacrylates)

IT 103-83-3 2867-47-2
RL: CAT (Catalyst use); USES (Uses)
(catalysts, with photosensitizers, for polymn. of polyacrylates)

IT 99-97-8 121-69-7, uses 3077-12-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts, with sulfinic acids, for polymn. of fluorine-contg. (meth)acrylates)

IT 146898-24-0P
RL: IMF (Industrial manufacture); PREP (Preparation)
(manuf. and acidification of)

IT 110186-96-4
RL: USES (Uses)
(photocurable, catalyst for)

IT 90-94-8 119-61-9, Benzophenone, uses 3524-62-7 6652-28-4
RL: USES (Uses)
(photosensitizers, for polymn. of fluorine-contg. methacrylates and polymethacrylates)

IT 134-81-6 3457-41-8 10373-78-1 117609-58-2
RL: USES (Uses)
(photosensitizers, with amine catalysts, for ***photopolymn*** . of polyacrylates)

IT 1644-10-6P
RL: RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, with hydroxyethyl methacrylate)

IT 88935-04-0P 146696-51-7P 146878-38-8P 146878-40-2P 146878-42-4P 146878-47-9P 146878-49-1P 146898-07-9P 146898-08-0P 146898-09-1P 146898-10-4P 146898-11-5P 146898-12-6P 146898-13-7P 146898-14-8P

146898-15-9P 146898-16-0P 146898-17-1P 146898-18-2P 146898-19-3P
146898-20-6P 146898-21-7P 146898-22-8P 146898-23-9P 146913-21-5P
RL: PREP (Preparation)
(prepn. of)
IT 359-40-0, Ethanedioyl difluoride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with hexafluoropropylene oxide)
IT ***428-59-1*** , Hexafluoropropylene oxide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with oxalyl fluoride)
IT 868-77-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with oxalyl fluoride-hexafluoropropylene oxide reaction products)

L14 ANSWER 36 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:265620 CAPLUS
DN 116:265620
ED Entered STN: 27 Jun 1992
TI ***Photopolymerizable*** composition for cladding optical fibers
IN Minns, Richard A.; Bloom, Iris B. K.; Ramharack, Roopram
PA Polaroid Corp., USA
SO U.S., 10 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G02B001-04
ICS G02B006-16
INCL 350096340
CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 73
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5024507	A	19910618	US 1990-521671	19900510
PRAI US 1990-521671		19900510		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5024507	ICM	G02B001-04
	ICS	G02B006-16
	INCL	350096340
US 5024507	NCL	385/145.000; 065/425.000; 427/163.200; 427/513.000; 430/286.100; 526/242.000

AB A ***photopolymerizable*** compn. for cladding optical fibers comprises .gtoreq.1 ***diacrylate*** monomer selected from compds. having the formulas CH2:CHCO2CH2ZCH2OCOCH:CH2 and RSO2N(C2H4OCOCH:CH2)2 (Z = perfluoroalkylene in which .gtoreq.1 of the C atoms may be replaced by an O linkage; R = perfluoroalkyl), .gtoreq.1 fluorinated monofunctional acrylate monomer having the formula CH2:CHCO2CH2Z1R1 (Z1 = perfluoroalkylene; R1 = For CHF2) in an amt. of 2-12 wt. parts/wt. part of the ***diacrylate*** monomer, a photoinitiator, and a viscosity-modifying agent in an amt. sufficient to increase the viscosity of the ***photopolymerizable*** compn. to 1000-15,000 cP. Upon ***photopolymn*** ., the polymd. compn. has a n value .ltoreq.1.43.
ST ***photopolymerizable*** compn cladding optical fiber
IT Optical fibers
(claddings, ***photopolymerizable*** compns. contg. ***diacrylates*** , fluorinated acrylates, and viscosity-modifying agents for prepn. of)
IT Rubber, synthetic
RL: USES (Uses)
(photoplymerizable compns. contg. ***diacrylates*** and fluorinated acrylates and, for forming optical fiber claddings)
IT Light-sensitive materials
(***photopolymerizable*** , contg. ***diacrylates*** , fluorinated acrylates, and viscosity-modifying agents for forming optical fiber claddings)
IT 9011-17-0
RL: USES (Uses)
(photoplymerizable compns. contg. ***diacrylates*** and fluorinated

acrylates and, for forming optical fiber claddings)
IT ***2264-01-9*** 13048-33-4, 1,6-Hexanediol ***diacrylate***
54841-42-8, Pentadecafluorooctyl acrylate
RL: USES (Uses)
(***photopolymerizable*** compns. contg., for forming optical fiber claddings)

L14 ANSWER 37 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:46362 CAPLUS
DN 116:46362
ED Entered STN: 08 Feb 1992
TI Dental materials containing fluorinated epoxy resins or (meth)acrylates
IN Kubo, Motonobu; Kashiwagi, Masato
PA Daikin Industries, Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM A61K006-087
CC 63-7 (Pharmaceuticals)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03130211	A2	19910604	JP 1989-269280	19891016

PRAI JP 1989-269280 19891016
CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 03130211	ICM	A61K006-087

GI

/ Structure 66 in file .gra /

AB Dental materials contain (i) epoxy resins I (M = cyclohexanediyl, 4-C6H4OC6H4-4', Q; Z = H, C1-18 fluoroalkyl; n .gtoreq.0) and ***photopolymn*** . initiators or (ii) CH2:CYCO2CH2CH(OH)CH2O[C(CF3)2MC(CF3)2OCH2CH(OH)CH2O]nC(CF3)2MC(CF3)2OCH2CH(OH)CH2O2CCY:CH2 (M, Z, n = same as above; Y = H, Me) (II) and polymn. initiators. The cured materials show good hardness, less water absorptivity, and are abrasion resistant. Atlac 382 (bisphenol-based resin) 10, ethylene glycol ***dimethacrylate*** 10, II (M = cyclohexanediyl, Y = Me, n = 0.1) (III) 10, Aerosil 300 (SiO2) 60, and Bz2O2 0.5 wt. part were mixed and cured at 120.degree. for 1 h to manuf. artificial teeth, which showed Knoop hardness 24.0 and satd. water absorption 0.6% (25.degree.), vs. 18.9 and 2.4%, resp., for controls, prepd. similarly but with nonfluorinated methacrylate instead of III.
ST dental fluorinated epoxy resin methacrylate; acrylate epoxy resin fluorinated dental
IT Dental materials and appliances
(polymers, fluorinated epoxy resins and poly(meth)acrylates for)
IT 138321-82-1P 138321-83-2P 138321-84-3P ***138392-61-7P***
RL: THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as dental material)

L14 ANSWER 38 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:536397 CAPLUS
DN 115:136397
ED Entered STN: 05 Oct 1991
TI Preparation of bis[(aminoalkyl)difluoroaryl]titanocenes as photoinitiators
IN Steiner, Eginhard; Beyeler, Harry; Huesler, Rinaldo
PA Ciba-Geigy A.-G., Switz.
SO Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C07F017-00
ICS C07F007-28; C08F002-50; G03F007-027
CC 29-10 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 35

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 401166	A2	19901205	EP 1990-810378	19900523
	EP 401166	A3	19910206		
	EP 401166	B1	19950222		
	R: DE, FR, GB, IT				
	US 5068371	A	19911126	US 1990-527989	19900523
	CA 2017934	AA	19901201	CA 1990-2017934	19900530
	CA 2017934	C	20010102		
	JP 03027393	A2	19910205	JP 1990-144238	19900601
PRAI	CH 1989-2075	A	19890601		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 401166	ICM	C07F017-00
	ICS	C07F007-28; C08F002-50; G03F007-027
EP 401166	ECLA	G03F007/029; C07F017/00; C08F002/50
US 5068371	NCL	556/053.000; 430/281.100; 430/288.100; 430/919.000; 430/920.000; 430/921.000; 430/922.000; 544/064.000; 544/164.000; 544/165.000; 544/225.000; 556/009.000; 556/052.000

OS MARPAT 115:136397

GI

/ Structure 67 in file .gra /

AB RR1R2R3Ti [R,R1 = (substituted) cyclopentadienyl, indenyl, 4,5,6,7-tetrahydroindenyl; R2,R3 = aminoalkyl-substituted Ph or 5- or 6-membered heteroaryl fluorinated in both positions ortho to The C-Ti bond], were prepd. Thus, a mixt. of bis(cyclopentadienyl)titanium dichloride and 1-[2-(2,4-difluorophenyl)ethyl]-1H-pyrrole in THF at -20.degree. was treated with LiN(CHMe2)2 in THF and the mixt. was stirred 2 h at -20.degree. to give title compd. I. I was used in photohardening of a mixt. of Scripset 540, trimethylolpropane triacrylate, polyethylene glycol ***diacrylate*** , and crystal violet.

ST fluoroarylcyclopentadienyltitanocene acrylate photohardener; titanocene dichloride arylation difluorobenzene; photoinitiator aminoalkyldifluoroaryltitanocene

IT Polymerization catalysts
(photochem., (difluoroaryl)cyclopentadienyltitanocenes)

IT 1271-19-8, Bis(cyclopentadienyl)titanium dichloride 32698-18-3, Bis(methylcyclopentadienyl)titanium chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(arylation of, with difluorobenzene deriv.)

IT 140-88-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with diazotized difluoroaniline)

IT 100-52-7, Benzaldehyde, reactions 4300-97-4, Chloropivaloyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with difluorobenzylamine, in prepn. of photoinitiator)

IT 15721-22-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with hexyldifluorobenzylamine, in prepn. of photoinitiator)

IT 110-13-4, Acetonylacetone 696-59-3, 2,5-Dimethoxytetrahydrofuran 13528-93-3, 1,2-Bis(chlorodimethylsilyl)ethane
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with difluorobenzylamine, in prepn. of photoinitiator)

IT 367-25-9, 2,4-Difluoroaniline
RL: RCT (Reactant); RACT (Reactant or reagent)
(diazotization and condensation of, with acrylate)

IT 67-56-1, Methanol, reactions 75-09-2, reactions 548-62-9, Crystal violet 1328-53-6, C.I. Pigment Green 7 3524-68-3, Sartomer SR 444 9003-08-1, Cymel 301 9003-39-8, Polyvinylpyrrolidone 15625-89-5 25135-39-1, Carboset 525 26570-48-9, Polyethyleneglycol

diacrylate 58206-31-8, Scripset 540
RL: RCT (Reactant); RACT (Reactant or reagent)
(***photopolymn*** . of mixts. contg., (difluoroaryl)titanium photoinitiators for)

IT 72235-52-0P, 2,4-Difluorobenzylamine 134672-65-4P 134672-66-5P
134672-67-6P ***134672-68-7P*** 134672-69-8P 134672-70-1P
134672-71-2P 134672-72-3P 134672-73-4P 134672-74-5P 134672-75-6P
134672-76-7P 134672-77-8P 134672-78-9P 134672-79-0P 134672-80-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of, as intermediate for aryltitanocene photohardener)

IT 134651-76-6P 134651-77-7P 134651-78-8P 134651-79-9P 134651-80-2P
136049-19-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as photoinitiator)

IT 64248-64-2, 2,5-Difluorobenzonitrile
RL: RCT (Reactant); RACT (Reactant or reagent)
(redn. of, in prepn. of aryltitanocene photoinitiator)

IT 66-25-1, Capronaldehyde
RL: RCT (Reactant); RACT (Reactant or reagent)
(reductive condensation of, with difluorobenzylamine, in prepn. of photoinitiator)

L14 ANSWER 39 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:247537 CAPLUS
DN 114:247537
ED Entered STN: 28 Jun 1991
TI Preparation of oxygen-containing bis(difluoroaryl)titanocenes as photoinitiators
IN Steiner, Eginhard; Beyeler, Harry; Riediker, Martin; Desobry, Vincent; Dietliker, Kurt; Huesler, Rinaldo
PA Ciba-Geigy A.-G., Switz.
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA German
IC ICM C07F017-00
ICS C07F007-28; C08F002-50; G03F007-027
CC 29-10 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 35, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 401165	A1	19901205	EP 1990-810377	19900523
	EP 401165	B1	19941130		
	R: DE, FR, GB, IT				
	US 5192642	A	19930309	US 1990-527988	19900523
	CA 2017932	AA	19901201	CA 1990-2017932	19900530
	CA 2017932	C	20010213		
	JP 03012403	A2	19910121	JP 1990-144239	19900601
	JP 2905985	B2	19990614		
	US 5306600	A	19940426	US 1992-975042	19921112
PRAI	CH 1989-2074	A	19890601		
	US 1990-527988	A3	19900523		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 401165	ICM	C07F017-00
	ICS	C07F007-28; C08F002-50; G03F007-027
US 5192642	NCL	430/281.100; 430/923.000; 430/947.000; 502/152.000; 502/155.000; 502/156.000; 522/012.000; 522/021.000; 522/029.000; 522/066.000; 526/943.000; 544/004.000; 544/064.000; 544/225.000; 546/002.000; 546/004.000; 546/011.000; 546/012.000; 549/003.000; 549/206.000; 556/011.000; 556/053.000
US 5306600	NCL	430/281.100; 430/923.000; 430/947.000; 502/152.000; 502/155.000; 502/156.000; 522/026.000; 522/066.000; 526/943.000; 544/004.000; 544/064.000; 544/225.000; 546/002.000; 546/004.000; 546/011.000; 546/012.000; 549/003.000; 549/206.000; 556/011.000; 556/053.000

OS MARPAT 114:247537
GI

/ Structure 68 in file .gra /

AB TiR1R2R3R4 [I; R1, R2 = (substituted) cyclopentadienyl, indenyl, tetrahydroindenyl; R3, R4 = (addnl. substituted) hydroxy- or acyloxy-substituted 2,6-F2C6H3, difluoroheteroaryl] were prepd. Thus, a mixt. of titanocene dichloride, 1-(trimethylsiloxy)-2,4-difluorobenzene, and THF at -10.degree. was treated with LDA in THF/hexane over 30 min; the mixt. was stirred 1 h at 0.degree. to give title compd. II after workup using oxalic acid-H2O. I were used in photohardening of a mixt. of Scripset 540, trimethylolpropane triacrylate, polyethylene glycol ***diacrylate*** , and crystal violet.

ST fluoroaryltitanocene prepn photoinitiator; titanocene bisdifluoroaryl prepn photoinitiator

IT Dental materials and appliances
(oxygen-contg. bis(difluorophenyl)titanocene photoinitiators for use in)

IT Coating materials
(lacquers, oxygen-contg. bis(difluorophenyl)titanocene photoinitiators for use in)

IT Resists
(photo-, oxygen-contg. bis(difluorophenyl)titanocene photoinitiators for)

IT Inks
(printing, oxygen-contg. bis(difluorophenyl)titanocene photoinitiators for use in)

IT 98-59-9, Tosyl chloride 108-24-7 111-36-4, Butyl isocyanate 112-13-0, Decanoyl chloride 112-76-5, Stearoyl chloride 123-62-6, Propionic anhydride 543-27-1, Isobutyl chloroformate 920-46-7, Methacryloyl chloride 1795-48-8, Isopropyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation by, of bis(hydroxyphenyl)titanocene deriv.)

IT 548-62-9, Crystal violet 1328-53-6, C.I. Pigment Green 7 3524-68-3, Sartomer SR 444 9003-08-1, Cymel 301 9003-39-8, Polyvinylpyrrolidone 15625-89-5 25135-39-1, Carboset 525 26570-48-9, Polyethylene glycol ***diacrylate*** 58206-31-8, Scripset 540
RL: RCT (Reactant); RACT (Reactant or reagent)
(***photopolymn*** . of mixts. contg., bis(difluorophenyl)titanocene photoinitiators for)

IT 133923-01-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and deprotection of)

IT 134026-64-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and desilylation of)

IT 133923-00-9P 134026-63-4P 134041-35-3P 134041-36-4P 134041-37-5P 134041-38-6P 134041-39-7P ***134041-40-0P*** 134041-41-1P 134041-42-2P 134041-43-3P 134041-44-4P 134041-45-5P 134064-93-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as photoinitiator)

IT 134127-56-3P 134127-57-4P 134127-58-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn., lithiation, and condensation of, with titanocene dichloride)

IT 67373-56-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation by, of bis(hydroxyphenyl)titanocene deriv.)

IT 367-27-1, 2,4-Difluorophenol 769-39-1, 2,3,5,6-Tetrafluorophenol
RL: RCT (Reactant); RACT (Reactant or reagent)
(silylation of)

L14 ANSWER 40 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:63549 CAPLUS
DN 114:63549
ED Entered STN: 23 Feb 1991
TI Vibrationproof damping polymer material
IN Yagi, Toshiharu; Tanaka, Yoshito; Noguchi, Tsuyoshi; Sakaguchi, Kohsaku; Tsuda, Nobuhiko

PA Daikin Industries, Ltd., Japan
SO Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DT Patent
LA English
IC ICM C08F259-08
ICS C08L027-12
ICA C08L033-04
ICI C08L027-12, C08L033-04
CC 37-6 (Plastics Manufacture and Processing)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 390207	A1	19901003	EP 1990-106182	19900330
	R: DE, FR, GB, IT				
	JP 03007748	A2	19910114	JP 1990-83493	19900329
	US 5169902	A	19921208	US 1990-501930	19900330
PRAI	JP 1989-81683	A	19890331		
	JP 1989-81684	A	19890331		
	JP 1989-81685	A	19890331		
	JP 1989-81686	A	19890331		
	JP 1989-81687	A	19890331		
	JP 1989-81688	A	19890331		
	JP 1989-81689	A	19890331		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 390207	ICM	C08F259-08
	ICS	C08L027-12
	ICA	C08L033-04
	ICI	C08L027-12, C08L033-04
US 5169902	NCL	525/301.000; 525/199.000; 525/276.000; 525/903.000

AB A title polymer is prepd. by dissolving an amorphous F-contg. polymer in acrylic monomer(s), and polymg. the monomer(s) with or without permitting the polymer to form an interpenetrating polymer network. Thus, charging a mixt. of 9.9 g Me methacrylate and 0.1 g ethylene glycol ***dimethacrylate*** , dissolving camphorquinone and dimethylaminoethyl methacrylate (each at 0.5 wt%, based on the mixt.), dissolving 20 g Dai-el 801 (I) and Perhexa 2.5B 0.5 wt% and triallyl isocyanurate 0.2 wt.% (based on I) to give a uniform soln., and irradiating with visible rays gave ***photopolymn*** , and the sample was heat-treated at 160.degree. for 10 min. to crosslink the rubber. The values of tan .delta. and dynamic modulus in tension (E1) at -25.degree., 0.degree., and +50.degree. were 0.027 and 2.20 .times. 1010, 0.039 and 1.82 .times. 1010, and 0.49 and 0.47 .times. 1010 dyne/cm2, resp.

ST vibration damper fluoro rubber blend; acrylic polymer fluoro rubber blend; interpenetrating network fluoro rubber blend

IT Epoxy resins, uses and miscellaneous
RL: PREP (Preparation)
(adhesives, in prepn. of metal laminates contg. vibration dampers)

IT Sound insulators
(crosslinked fluororubber-acrylic polymer blends as, prepn. of)

IT Adhesives
(epoxy, in prepn. of metal laminates contg. vibration dampers)

IT Plastics, film
RL: USES (Uses)
(fluororubber-acrylic polymer blends, interpenetrating networks, for vibration dampers)

IT Vulcanization accelerators and agents
(triallyl isocyanurate, for fluoro rubber interpenetrating blends with acrylic polymers)

IT Vibration
(dampers, crosslinked fluororubber-acrylic polymer blends as, prepn. of)

IT Rubber, synthetic
RL: USES (Uses)
(hexafluoropropene-tetrafluoroethylene-vinylidene fluoride, blends with acrylic polymers, ***photopolymd*** . interpenetrating networks, for vibration dampers)

IT Rubber, synthetic
RL: USES (Uses)
(hexafluoropropene-vinylidene fluoride, blends with acrylic polymers,

interpenetrating networks, for vibration dampers)
IT 27029-05-6, Propylene-tetrafluoroethylene copolymer
RL: USES (Uses)
(blends with acrylic copolymers, interpenetrating networks, for vibration dampers)
IT 24937-79-9, Polyvinylidene fluoride
RL: USES (Uses)
(blends with acrylic polymers, vibration dampers)
IT 34568-25-7, Dimethylaminoethylmethacrylate-ethyleneglycoldimethacrylate-methylmethacrylate copolymer
RL: USES (Uses)
(blends with cross link fluoro rubber, interpenetrating networks, for vibration dampers)
IT 95243-53-1
RL: USES (Uses)
(blends with fluoro copolymers, interpenetrating networks, for vibration dampers)
IT 9011-14-7, Polymethylmethacrylate
RL: PRP (Properties)
(blends with fluoro rubber, for vibration dampers)
IT 31229-25-1, Dimethylaminoethylmethacrylate-methylacrylate copolymer
RL: USES (Uses)
(blends with fluoro rubber, interpenetrating network, for vibration dampers)
IT 9003-42-3 68227-09-8 131756-44-0 131756-45-1
RL: USES (Uses)
(blends with fluoro rubber, interpenetrating networks, for vibration dampers)
IT 131862-63-0
RL: USES (Uses)
(blends with fluoro rubber, ***photopolymd*** . interpenetrating networks, for vibration dampers)
IT 131756-43-9
RL: USES (Uses)
(blends with fluoropolymers, interpenetrating networks, for vibration dampers)
IT 26222-42-4, Dimethylaminoethylmethacrylate-methylmethacrylate copolymer
RL: USES (Uses)
(blends with fluororubber, crosslinked, for vibration dampers)
IT ***29991-77-3***
RL: USES (Uses)
(blends with propene-tetrafluoroethylene polymer, interpenetrating networks, for vibration dampers)
IT 27029-05-6, Propylene-tetrafluoroethylene copolymer
RL: USES (Uses)
(blends with tetrafluoropropylmethacrylate polymer, interpenetrating networks, for vibration dampers)
IT 78-67-1
RL: CAT (Catalyst use); USES (Uses)
(catalysts, for prepn. of copolymer-acrylic polymer blends, for vibration)
IT 7429-90-5, Aluminum, uses and miscellaneous
RL: USES (Uses)
(laminates for steel, epoxy adhesives and vibration dampers in)
IT 12597-69-2, Steel, uses and miscellaneous
RL: USES (Uses)
(laminates with aluminum, epoxy adhesives and vibration dampers in)

L14 ANSWER 41 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:448151 CAPLUS
DN 111:48151
ED Entered STN: 05 Aug 1989
TI Negative ***photoresist*** composition containing polyimide
IN Mueller, Werner H.; Khanna, Dinesh N.; Vora, Rohitkumar H.
PA Hoechst Celanese Corp., USA
SO U.S., 9 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G03C001-68
INCL 430288000
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4803147	A	19890207	US 1987-124742	19871124
	EP 317941	A2	19890531	EP 1988-119368	19881122
	EP 317941	A3	19900110		
	R: BE, DE, FR, GB, IT, NL				
	JP 02000870	A2	19900105	JP 1988-295925	19881122
PRAI	US 1987-124742	A	19871124		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 4803147	ICM	G03C001-68
	INCL	430288000
US 4803147	NCL	430/288.100; 430/271.100; 430/285.100; 430/906.000; 522/142.000; 522/164.000

AB A neg. ***photoresist*** compn. which provides resist patterns having high thermal stability, good insulating properties, and excellent adhesion to metal substrates and esp. useful in microelectronic applications comprises a solvent-sol. polyimide prepd. from an arom. diamine and an arom. dianhydride, a polyfunctional ethylenically unsatd. monomer, and a photoinitiator. The arom. diamine is preferably selected from 2,2-hexafluorobis(3-aminophenyl)propane, 2,2-hexafluorobis(4-aminophenyl)propane, 2,2-hexafluorobis[4-(3-aminophenoxy)phenyl]propane, 2,2-hexafluorobis[4-(4-aminophenoxy)phenyl]propane, and 1,1-bis(4-aminophenyl)-1-phenyl-2,2,2-trifluoroethane. The arom. dianhydride is preferably selected from 2,2-hexafluorobis(3,4-dicarboxyphenyl)tetracarboxylic dianhydride and 1,1-bis[4-(1,2-dicarboxyphenyl)]-1-phenyl-2,2,2-trifluoroethane dianhydride. The compn. may also be used to prep. shaped articles, such as molded parts, or as a ***photopolymerizable*** varnish to provide protective layers.

ST neg ***photoresist*** arom polyimide; ***photopolymerizable*** polyimide compn electronic circuit

IT Coating materials
(***photopolymerizable*** compns. contg. arom. polyimide and polyfunctional ethylenically unsatd. monomer and photoinitiator as)

IT Polyimides, uses and miscellaneous
RL: USES (Uses)
(arom., ***photopolymerizable*** compns. contg. polyfunctional ethylenically unsatd. monomer and photoinitiator and, as neg.-working ***photoresist***)

IT Electric circuits
(integrated, neg.-working ***photoresist*** compns. contg. arom. polyimide and polyfunctional ethylenically unsatd. monomer and photoinitiator for fabrication of)

IT Resists
(photo-, neg.-working, ***photopolymerizable*** compns. contg. arom. polyimide and polyfunctional ethylenically unsatd. monomer and photoinitiator as)

IT 3524-68-3, Pentaerythritol triacrylate ***108050-41-5*** , 2,2-Hexafluorobis(4-hydroxyphenyl)propane ***diacrylate***
RL: USES (Uses)
(***photopolymerizable*** compns. contg. arom. polyimide and photoinitiator and, as ***photoresists*** and for producing protective layers)

IT 97802-84-1, 1,3-Bis(trichloromethyl)-5-(p-stilbenyl)-2,4,6-triazine
RL: USES (Uses)
(***photopolymerizable*** compns. contg. arom. polyimide and polyfunctional ethylenically unsatd. monomer and, as ***photoresists*** and for producing protective layers)

IT 29896-40-0 32036-79-6 36250-27-8 36289-92-6 87182-96-5
87186-94-5 91993-29-2 92004-89-2 94289-79-9 94322-31-3
96926-36-2 96926-72-6 105117-49-5 105137-74-4 106826-97-5
106849-22-3 111898-27-2 112567-15-4 112567-31-4 116321-23-4
116321-24-5 116321-48-3 116321-49-4 118085-80-6 118106-13-1
121478-56-6 121478-57-7 121478-58-8 121478-59-9 121478-60-2
121478-61-3 121478-62-4 121509-30-6 121509-31-7 121509-32-8
121509-61-3 121509-62-4 121509-63-5 121509-64-6 121509-65-7
121509-66-8 121509-67-9 121509-68-0 121528-77-6 121528-78-7
121528-79-8
RL: USES (Uses)

(***photopolymerizable*** compns. contg. polyfunctional ethylenically unsatd. monomer and photoinitiator and, as ***photoresists*** and for producing protective layers)

L14 ANSWER 42 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:174455 CAPLUS
DN 110:174455
ED Entered STN: 12 May 1989
TI Photocurable fluoropolymer compositions with controlled refractive index
IN Yamamoto, Takashi; Matsumoto, Shiruyoshi; Murata, Ryuji
PA Mitsubishi Rayon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C08F020-24
ICS C08F002-44; C08F002-48; C08F020-24
ICA C09J003-14
CC 37-6 (Plastics Manufacture and Processing)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 63248807	A2	19881017	JP 1987-82703	19870403
PRAI JP 1987-82703		19870403		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 63248807	ICM	C08F020-24
	ICS	C08F002-44; C08F002-48; C08F020-24
	ICA	C09J003-14

AB Title compns., useful as adhesives, coatings, and sealants for optical devices, comprise fluoropolymers, (meth)acrylate esters of H-contg. fluoroalkanols, crosslinking monomers, and ***photopolymn*** initiators. A mixt. of 1,1,2,2-tetrahydroperfluorodecyl acrylate 20, trifluoroethyl acrylate 80, 1,6-hexanediol ***diacrylate*** 7, 62:38 1,1,2,2-tetrahydroperfluorodecyl methacrylate-trifluoroethyl methacrylate copolymer 15, and Irgacure 651 3 parts was cast on glass, covered with polyester film, and cured 1 s in UV light to give a film having n 1.389 before and after 20 h at 150.degree..
ST transparency fluoroalkyl acrylate copolymer; photocuring fluoroalkyl acrylate copolymer; crosslinking photo fluoroalkyl acrylate; hexanediol ***diacrylate*** photocuring fluoropolymer; methacrylate fluoroalkyl copolymer transparency; refractive index control fluoropolymer; polymn photo fluoroalkyl acrylate
IT Refractive index and Optical refraction
(control of, of photocured fluoroalkyl acrylate copolymer compns.)
IT Plastics
RL: USES (Uses)
(fluoroalkyl acrylate polymer blends, photocured, with controlled refractive index)
IT Transparent materials
(fluoroalkyl acrylate polymers, photocured, with controlled refractive index)
IT Fluoropolymers
RL: USES (Uses)
(fluoroalkyl acrylate-contg., photocured, with controlled refractive index)
IT Crosslinking
Polymerization
(photochem., of fluoroalkyl acrylate polymers, with controlled refractive index)
IT 25684-76-8, Tetrafluoroethylene-vinylidene fluoride copolymer ***29991-77-3*** 54802-79-8 119495-17-9 ***119495-18-0***
RL: USES (Uses)
(fluoropolymers contg., photocured, with controlled refractive index)
IT 118256-09-0 119495-19-1 119495-20-4 ***119495-21-5*** 120111-54-8
RL: USES (Uses)
(photocured, contg. fluoropolymers, with controlled refractive index)

L14 ANSWER 43 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:96762 CAPLUS

DN 110:96762
ED Entered STN: 17 Mar 1989
TI UV-curable resin sheaths for optical fibers
IN Yamamoto, Takashi; Matsumoto, Shiruyoshi; Murata, Ryuji
PA Mitsubishi Rayon Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G02B006-00
ICA C08F002-48; C08F220-22; C08F220-38; D01F008-10
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 73
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 63208807	A2	19880830	JP 1987-41381	19870226
PRAI JP 1987-41381		19870226		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 63208807	ICM	G02B006-00
	ICA	C08F002-48; C08F220-22; C08F220-38; D01F008-10

AB Optical fibers with good heat resistance have sheaths of UV-curable resins contg. fluoroalkyl (meth)acrylates and polyfunctional monomers. A mixt. of Aronix M1200 (urethane acrylate) 20, trifluoroethyl acrylate 80, neopentyl glycol ***diacrylate*** 15 and Irgacure-184 2 parts was coated on PMMA and irradiated with UV to give a fiber with shrinkage .ltoreq.1% after 4 h at 100.degree. and no loss of light transmission at 120.degree..
ST heat resistance optical fiber; photocurable sheath optical fiber; acrylate trifluoroethyl copolymer ***photopolymn*** ; fluoroalkyl acrylate copolymer ***photopolymn*** ; urethane acrylate copolymer ***photopolymn*** ; polymn photochem sheath optical fiber
IT Optical fibers
(heat-resistant, UV-curable sheaths for)
IT Polymerization
(photochem., of sheaths for heat-resistant optical fibers)
IT 119252-29-8 ***119252-30-1*** 119279-74-2
RL: USES (Uses)
(sheaths, UV-curable, for heat-resistant optical fibers)

L14 ANSWER 44 OF 44 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:498880 CAPLUS
DN 109:98880
ED Entered STN: 17 Sep 1988
TI Polymers for contact lenses and biocompatible bodies
IN Froix, Michael
PA USA
SO Ger. Offen., 15 pp.
CODEN: GWXXBX
DT Patent
LA German
IC ICM C08J003-24
ICS C08K005-54; C08K005-05; C08L053-00; G02B001-04
ICA B29D011-00; A61L017-00; A61L027-00; A61L029-00; A61L031-00
ICI C08J003-24, C08K005-54, C08K005-05; C08J003-24, C08L033-00
CC 63-7 (Pharmaceuticals)
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3727044	A1	19880218	DE 1987-3727044	19870813
US 4752627	A	19880621	US 1986-896603	19860813
AU 8776853	A1	19880218	AU 1987-76853	19870813
AU 595744	B2	19900405		
FR 2603593	A1	19880311	FR 1987-11560	19870813
GB 2195644	A1	19880413	GB 1987-19149	19870813
JP 63106724	A2	19880511	JP 1987-202608	19870813
PRAI US 1986-896603	A	19860813		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES

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 DE 3727044       ICM    C08J003-24
                  ICS    C08K005-54; C08K005-05; C08L053-00; G02B001-04
                  ICA    B29D011-00; A61L017-00; A61L027-00; A61L029-00;
                         A61L031-00
                  ICI    C08J003-24, C08K005-54, C08K005-05; C08J003-24,
                         C08L033-00
 US 4752627       NCL    523/106.000; 523/107.000; 523/108.000; 526/245.000;
                         526/320.000
AB   Polymers, useful for contact lenses and biocompatible bodies, which have
     fixed moisture content, protein rejection, and excellent transparency,
     based on polymers and/or copolymers crosslinked with 0.1-90% of >1 unsatd.
     diesters prepd. from HOCH2(CF2)mCH2OH (m = 1-10) and/or
     (HOSiMe2O)x(CH2CH2)yH (X = 1-300; y = 1-400; such that y is >10 times
     larger than x), are prepd.  3-Methacryloyloxypropyl(tris)
     (trimethylsiloxy)silane 41, Me methacrylate 20, polyethylene glycol
     methacrylate 20, polyethylene glycol   ***dimethacrylate***   350.9,
     NDurocure 1173 0.1 g were mixed, degassed, and   ***photopolymd***   . to
     produce a copolymer having hardness 82, and water content 3.2%.  A lens
     prepd. from this material had high O permeability and good wettability.
ST   contact lens hydrophilic protein rejecting; oxygen permeability contact
     lens manuf
IT   Siloxanes and Silicones, biological studies
     RL: BIOL (Biological study)
        (acrylic, manuf. of, for contact lenses and implant materials)
IT   Polyesters, biological studies
        (acrylic-, manuf. of, for contact lenses and implant materials)
IT   Lenses
        (contact, manuf. of, biocompatible polymers for)
IT   Prosthetic materials and Prosthetics
        (implants, acrylic polymer-polyester-siloxane and/or acrylic
        polymer-polyesters as, manuf. of)
IT   Polymerization
        (photochem., contact lens and biocompatible material manuf. by)
IT   Acrylic polymers, biological studies
     RL: BIOL (Biological study)
        (polyester-, manuf. of, for contact lenses and implant materials)
IT   Acrylic polymers, biological studies
     RL: BIOL (Biological study)
        (siloxane-, manuf. of, for contact lenses and implant materials)
IT   26374-18-5P   30944-41-3P   58503-81-4P   62083-88-9P   72642-88-7P
     94772-40-4P   115863-46-2P   ***115863-48-4P***     ***115863-49-5P***
     115863-50-8P   ***115863-51-9P***     ***115863-52-0P***
       ***115863-53-1P***     ***115863-54-2P***     115863-55-3P
       ***115863-56-4P***     115863-59-7P   115863-60-0P   ***115863-61-1P***
     115863-62-2P   ***115863-66-6P***     115863-67-7P   115863-68-8P
     115863-69-9P   115863-70-2P   115863-71-3P   ***115863-72-4P***
     115896-47-4P   ***115896-48-5P***     115896-49-6P   115934-20-8P
       ***116004-46-7P***     ***116004-47-8P***     ***116004-48-9P***
       ***116050-02-3P***
     RL: PREP (Preparation)
        (manuf. of, for contact lenses or biocompatible implants)


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     (FILE 'HOME' ENTERED AT 16:14:20 ON 30 AUG 2005)

     FILE 'CAPLUS' ENTERED AT 16:14:26 ON 30 AUG 2005
L1             1 S US 20040137334/PN

     FILE 'REGISTRY' ENTERED AT 16:14:49 ON 30 AUG 2005

     FILE 'CAPLUS' ENTERED AT 16:14:54 ON 30 AUG 2005
L2               TRA L1 1- RN :       29 TERMS

     FILE 'REGISTRY' ENTERED AT 16:14:54 ON 30 AUG 2005
L3            29 SEA L2
L4            16 S L3 AND (DODECAFLUORO? OR OCTAFLUORO?)
L5         10807 S (OXIRANE OR PROPENOIC) AND (DIFLUORO OR TETRAFLUORO OR HEXAFL
L6         10807 S (OXIRANE OR PROPENOIC) AND (DIFLUORO? OR TETRAFLUORO? OR HEXA
L7         10807 S (OXIRANE OR (PROPENOIC(3A)ACID)) AND (DIFLUORO? OR TETRAFLUOR
L8          7364 S (OXIRANE OR (PROPENOIC(3A)ACID))(5A)(DIFLUORO? OR TETRAFLUORO
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L9          6128 S (PROPENOIC(3A)ACID)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUO
L10         1298 S (OXIRANE)(5A)(DIFLUORO? OR TETRAFLUORO? OR HEXAFLUORO? OR OCT

     FILE 'CAPLUS' ENTERED AT 16:23:00 ON 30 AUG 2005
L11           16 S L4
L12          421 S L7 AND (PHOTORESIST? OR PHOTOPOLYMER?)
L13           20 S L7 AND (HOLOGRA?)
L14           44 S L12 AND (DIACRYLATE OR DIEPOXIDE OR DIOXIRANE OR DIMETHACRYLA

=>  log y
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   239.58     494.13

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                   -54.75     -54.75

STN INTERNATIONAL LOGOFF AT 16:28:01 ON 30 AUG 2005
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